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What's wrong with homebuilding technology? Not very much

So-called experts to the contrary, present systems and methods are not the reasons for high housing costs. The real culprits: land, money, and politics

MARKETS

California—where housing’s troubles wrote a nationwide warning.

Why did a boom boomerang in this state that’s noted for sophisticated market research? The answer is significant to builders and lenders everywhere

REMODELING

Can production-line methods put profit in rehab jobs?

Remodeling can be systematized and standardized—but not radically. The production-minded remodeler who thinks small, stands to boost his efficiency

How to pack profitable rental space into cramped old houses

A stickler for planning (he even works with scale models of rooms) shows space-saving ideas that remodelers—and apartment builders, too—can use

NEWS

New money poised to enter the beleaguered mortgage market

The Dime Savings Bank of Brooklyn, nation’s second largest savings bank, is plunging into out-of-state mortgages. Pension funds are buying, too.

Also: Tight money spurs remodeling market. . . . Nonprofit housing: a boomlet

DEPARTMENTS

Business in the making

What the leaders build

Letters

Technology

ADVERTISING INDEX


NEXT MONTH

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“As apartment builders and owners, we’re conscious of maintenance problems,” says Leon N. Weiner, builder and First Vice-President of the N.A.H.B. “We use Du Pont Nylon Shutters because of their durability and value.”
New money: $1.8 billion saving bank starts national FHA-mortgage buying

The decision by the Dime Savings Bank of Brooklyn* is the most new money in months for the builders and mortgage bankers caught in a tight-money squeeze since December.

The bank has historically confined its $1.4-billion mortgage portfolio to direct mortgages and a few brokered loans, all in the New York metropolitan area and surrounding counties. Reversing policy, the Dime is buying FHA loans from the rest of the country, and a new source of money will become available to much of the homebuilding industry.

The Dime needed a higher yield than that available in New York, where its direct mortgage lending was crowding the state's 6% usual ceiling. Yields on FHA 203b residential loans purchased in the national secondary market have risen to a 6.10-to-6.32% range, and the pressure is still upward.

Other bank money. And some "scatter buying" of mortgages has now developed among a few other New York savings banks which had been virtually out of the FHA market for months for lack of cash.

The money comes from amortization payments, and purchases are usually in mere $1-million lots, but they may signal an intention to resume extensive buying if savings flows turn sharply upward.

*It's assets of $1.85 billion are second only to those of its Manhattan neighbor, Bowery Savings, with $2.3 billion.

The Bowery Savings Bank in New York has made some funds available to mortgage-banking servicers to support them at the current market price of 93 with ¾% servicing.

"It's too early to ring any bells," warns Senior Vice President August M. Strung. "But there is some validity to a theory that the market will ease a little bit, and I must emphasize the little bit, we've past the July savings squeeze. Prices and yields will remain steady but some money should become available."

Pension fund purchases. Builders are also hearing good news from another front. Executive Officer Bill Leonard of the Associated Homebuilders of Greater Eastbay is giving an excellent response to a campaign to bring California's pension-fund money into mortgaging (News, July). Leonard chided the big California State Teachers Retirement Fund for sending its millions to the New York bond market when the New York State Teachers Fund was busy buying California's FHA mortgages at higher yields.

A day later he received letters from three of the nine California fund trustees promising a policy reappraisal.

Leonard also announced that California's 46-county Carpenters Pension Fund, investing at the rate of $1 million a month, will put the full amount into mortgages. It had been placing 65% in other instruments.

The labor union purchases are small, but they may well represent the tip of an

HOMEBUILDER'S MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending July 15.

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iceberg. They signal organized labor's intention to re-examine its investment policy, always oriented toward bonds. Leonard's campaign is probably the most significant development in California housing finance this year.

NAHB says the California and Dime moves are the only bright spots in an otherwise bleak savings picture. When June housing permits nosedived 14%, NAHB summoned 400 of its policymakers to an emergency meeting in Washington. President Johnson pledged "we'll do everything we can to expedite" Congressional approval of a temporary lid on bank and S&L interest rates. The U.S. S&L League has balked at controls, called "the best thing that can be done" by Johnson.

Savings inflow. Some relief is evident in the savings picture. The nation's savings banks gained $200 million in deposits in June and preliminary figures indicated that New York's banks, at least, were doing well in July as a result of an increase to 5% in savings dividends.

The 6,200 savings and loan associations gained $455 million in May to reverse April's loss of $646 million, and some of the gain translated into money for mortgaging. The industry expected another increase when June's figures were in and an even better showing in July, the first month under the Home Loan Bank Board's authorization to raise savings rates to attract deposits.

Victory in California. The entire nation had been concerned about California's S&L during the first ten critical days of July, the post-dividend period when savings often move about in quest of higher rates. But the big S&Ls raised their own savings dividends to 5 1/2% on passbooks and 5 3/4% on three-year bonus accounts. Home S&L and Lytton Financial Corp., which led the movement, showed big savings gains for the period and, while the first-week savings for all 204 state-chartered associations did decline slightly, the loss was less than one-third of the drop in the same post-dividend period in April.

Tight money spurs an upsurge in remodeling industry

While tight money afflicts the new-home market, lenders appear to have all the funds needed for home-improvement loans. The reason: Improvement loans yield 9.4% to 10.4% vs. 5 3/4% for prime business loans and up to 7% for mortgages; what's more, commercial banks, which now have more money available than savings banks and S&Ls, have always been more attuned to consumer lending.

The remodeling surge shows in a gain in the first five months of the year in the number and amount of FHA Title One property-improvement loans, the first such gain in recent years. The number of loans was up about 5% to 187,819 while dollar volume gained nearly 10% to $249 million.

Another significant factor is a hefty year-to-year gain in the total of repair and modernization loans held by financial institutions in April 1966, latest date available. The Federal Reserve Bulletin reported $3,602 million in loans held at that time—up $114 million, or 3%, in a year.

In New York City, Executive Director Edgar V. Hall, of the National Home Improvement Council, says the dominant factor is the tight mortgage market: "Substantial amounts of home-improvement money are available at the higher remodeling rates." He also notes the drop-off in new-car sales, which, he says, "makes more money for such fields as remodeling lending."

Aside from the financial factor in the new trend, Hall cites increased competition between fuels, with electric utilities seeking more electric-heat sales in the conversion market. As a result, he predicts, "utilities are going to be competing more strongly . . . and their emphasis will be more in the direction of remodeling since new home starts are dropping off."

Improve instead of move. Even when a homeowner bent on upgrading can find mortgage money to move, its higher cost perhaps a 6% to 8% discount on an FHA loan—may persuade him to improve his old house instead.

Hall notes that the remodeling industry is seeking to take advantage of this situation by channeling potential homebuyers into the improvement market: "Remodeling publicity and promotion will now remind the homeowner of an alternative to building or buying a new home."

New look. Los Angeles Research Analyst Sanford R. Goodkin suggests that builders take a new look at the booming renovation and remodeling market.

Surveys indicate national expenditures of $14 to $18 billion for renovation in 1966, he says; sales of roofing, siding, and insulation materials alone for home improvements will pass $1 billion.

Goodkin urges small-volume builders in particular to turn to modernization of older homes.

And a recent Pittsburgh study shows that one of these small homebuilders (one to nine houses a year) does home-improvement work as well. The evidence suggests small builders faced with a money shortage for new houses might have additional profit opportunities in the improvement field.

Dodge economist foresees a rebound in starts

The lone challenge to the almost universal predictions of gloom and doom for housing comes from Economist George A. Christie, of the F. W. Dodge Co., division of McGraw-Hill Inc.

Christie has just taken a second look at the last half of 1966 and now predicts "some modest improvement in the fourth quarter."

He expects 1,425,000 housing starts this year, 100,000 fewer than his original estimate but only 4% below the 1965 total. By contrast, NAHB forecasters in 83 major cities now see an 11% drop for the year.

Reasons Christie: "The conditions which gave rise to the spring mortgage crisis may let up just a bit so that more funds will be available, at a price." But he warns: "Homebuilders will still have to live with a difficult money market in the latter half of 1966."

Christie says demand would have supported 1,525,000 units this year, so the cutback of 100,000 units "is the real impact of credit restriction."

He predicts more stability in the mortgage market for two reasons: "Total demand for funds will advance more slowly than in the extraordinary first quarter when the mortgage well ran dry. And, simultaneously, some return to a slightly higher, more normal rate of saving by consumers will make more funds generally available."
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Nonprofit housing '66: a boomlet with tough months ahead

At first glance, it seems that all the ingredients of a boom in nonprofit, low-rent housing are here at last:

- The rent supplement program has enough money to provide 20,000 moderate-rent units—equal to the output of all FHA middle-income apartments last year.
- Nonprofit groups, even national churches, are again pushing hard to sponsor low-rent housing.
- And more and more limited-dividend companies are being formed, (graph right) a sure indication that the building industry has learned how to share the profits available in nonprofit housing.

But a closer glance reveals some imminent dangers—such as a lack of sites and ever tighter money—which could turn 1966 into a year to forget. Nevertheless, if nonprofit housing continues to boom, the building industry will face its largest new market since 1948, when William Levitt uncorked the moderate-priced, suburban market. And the builders who move into the nonprofit market now will be at the ground floor.

Builders can enter the market either by building for a nonprofit sponsor and drawing a 10% building profit or by forming a limited-dividend (profit) company to manage its own project for 20 to 40 years at a yearly profit of 6% on equity. And they can choose from among six housing programs for the elderly, handicapped, or poor.

Foundation-sized housing. Nonprofit housing stands to get a boost as the character of nonprofit sponsors shifts from local groups to foundation-sized organizations such as national churches.

That shift has been spurred by Urban America Inc., a private, nonprofit planning group (see p. 18). Last year Urban America helped local sponsors plan 3,000 units by providing technical consultants without charge. Too, the Ford Foundation, which got the program started with $575,000, has earmarked $2.2 million to put Urban America on the road to promoting 30,000 units a year.

With expansion imminent, Urban America will begin to administer a new $1-million effort supported by four huge Protestant denominations to stimulate large-scale construction. The churches—United Church of Christ, Episcopal Church, Presbyterian Church of the U.S.A., and Methodist Church—will pledge $50,000 each for two years. The remainder will be supplied by the Ford Foundation.

Urban America also hopes to lend “seed money” to budding development corporations, which in turn can marshal local men and money to build low-rent housing. Thirteen such corporations in towns from Baltimore to Omaha have already been promoted by Urban America.

Another expanding nonprofit group, the Foundation for Cooperative Housing, will sponsor 6,000 units during the fiscal year ending September 30. FCH, which specializes in racially integrated cooperatives, has 130 projects planned, including 14 seeking rent supplements. Its activity has increased by 20% annually.

Togetherness. Nonprofit housing will also get a boost from closer government cooperation with nonprofit groups.

FCH is about to begin a joint program with the Office of Economic Opportunity—despite earlier rebuffs. An FCH staffer will be assigned to oeo to work with potential local-housing sponsors.

Urban America wants to create offices near the six regional offices of the Housing and Urban Development Dept.

In New York State, Governor Nelson A. Rockefeller (R.) has just signed a law providing $10 million in seed money to nonprofit-housing sponsors. It could become a prototype for other states.

On the tough side. For every promised boost there are emerging threats that could bury nonprofit housing. Inexpensive sites on the fringes of central city ghettos are critically short. One church leader in riot-scattered Watts has searched for a site for a year.

And when land is found for $2 a sq. ft. or less, hostile city leaders often shelve needed zoning changes. One would-be sponsor in the Philadelphia area has lost three sites, says New York Consultant William H. Horner of Horner, Nelson, Schneider & Assoc.

Even with a suitable site, nonprofit and limited-dividend sponsors face a special problem—tight mortgage money. Tight money prevented some of FCH's 40 build-

FHA’s 221d3 programs limited profit vs nonprofit

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Nonprofit groups do almost everything from packaging projects this year. And FHA isn’t helping matters by setting low mortgage limits—5½% with a 2% service fee. Discount points must be certified.

A soft-spoken churchman, Larry Upton of the United Church of Christ, charges that some FHA district staff are prejudiced against integrated housing and churches that try to build it. And church-sponsored projects account for 25% of FHA multi-family applications. Policy makers at FHA deny the charge.

Consultant Horner adds that some FHA staff have a negative attitude toward all nonprofit sponsors: “The staff have learned that they don’t get medals for approving good projects, but they can get drummed out of their jobs for approving a bad one. As a result, they tend to reject every application until a higher-up in FHA or a politician gets them off the hook by interceding in behalf of the sponsor.”

That practice, Horner says, often discourages sponsors.

Horner adds: “FHA shouldn’t be afraid of a few foreclosures. This is social-risk housing, and if the churches are willing to take the risk, FHA should be, too.”

Others say FHA is moving applications slowly simply because it is looking a longer look at each potential sponsor. “They are looking three times where they never looked before,” says one sponsor.

The main problem in processing applications is that FHA can’t tell the good guys from the bad—the legitimate package from the fast-buck operator. Belatedly, FHA is seeking a solution by requiring full disclosure of each sponsor’s past performance (see p. 12).

Limited-dividend companies face a special problem with FHA, which seems to favor nonprofit sponsors in the rent-subsidy program. The first 11 sponsors chosen by FHA were nonprofit groups, though applications for at least 50-50 between limited-dividend and nonprofit groups.

Says Builder Walter Winchester of Boston, who heads a limited-dividend company: “The government is trying to make the rent-subsidy program palatable so it can get broad-based support.” He adds that if the trend continues, FHA will be ignoring the more productive builder in favor of less efficient nonprofit groups.

Builder’s choice. A builder can profit in two ways from nonprofit housing. He can build for a sponsor and get out of the project fast. Or he can create a limited-dividend company to manage the project and earn long-term profits that are virtually tax free. But there are serious disadvantages to each:

Building for a sponsor. Builders have learned that building for an inexperienced sponsor—even a church—can be hell.

Nonprofit groups do almost everything wrong, according to Joseph McGrath of Urban America’s nonprofit assistance division, which was formed to advise inexperienced sponsors. McGrath says:

- Nonprofit groups inevitably delay

- Rent supplement programs have lower mortgage limits than FHA.
- FHA isn’t helping。”
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things. Reason: unwieldy committees.
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million mortgage.
• They often are reluctant to spend any of their own money.
• They sometimes mask deep apathy behind a veneer of enthusiasm.

To run a limited-dividend company, it takes special care—and some luck—to produce a project that any builder is willing to live with for 20 to 40 years. Two builders who have—Harvey Coleman of Park Ridge, N. J. and Walter Winchester of Boston—stress these requirements:

1. A downtown site. This means the builder may have to use sites bypassed by others. Winchester put one two-story project on piles.
2. A town big enough to support the project. A town of 50,000 generally can support a 150-unit project, the smallest project Coleman and Winchester suggest.
3. Construction costs that do not outrun local income levels. Coleman surveyed Rhode Island and decided the income levels were too low to support the higher mortgage demanded by local construction costs.
4. Non-restrictive local construction codes. A fire code in Milford, Conn., would have added a disastrous 10% to Coleman's costs.
5. A level trend of local taxes. Coleman won't build in a town that doesn't have a level or declining tax rate over the last 10 years.
6. Management capable of close supervision. Coleman learned that when FHA fined him $20,000 recently for allowing ineligible tenants to rent 40% of the units in one project. "FHA didn't give us enough information in the beginning," says Coleman. "And some of the families lied to us about their income; others broke up faster than we could count them."

A mayor's drive for better housing comes too late to avert race riots

In his one year as mayor of Omaha, A. V. Sorensen has done more to improve housing than the previous administration did in four.

Sorensen—a retired millionaire industrialist who donates his mayor's salary to a Boys Club—first sat down with Robert C. Weaver, then head of HHFA and now secretary of the Housing and Urban Development Dept., to find out how quickly low-cost housing could be built outside Omaha's ghetto.

Then, with help from Urban America Inc., Sorensen formed a local development corporation to stimulate construction of nonprofit housing. He won a $250,000 cash grant from the Eppley Foundation and a promise of another $250,000 from local businessmen.

Within eight months, the corporation was waiting for FHA approval of its first 100-unit project and actively planning five others.

But it was too late. On a sultry July night with temperatures in the 90s, riots erupted in a Negro slum of one- and two-family houses. When sporadic rioting ended two days later, 122 persons had been arrested, 20 stores were damaged, and Mayor Sorensen had doubled his efforts to improve Omaha.

After a series of meetings with Negro leaders, he attacked the main grievances—slum housing, poor recreation facilities, and inadequate job opportunities. Sorensen turned a local YMCA into a job headquarters and continued to work around the clock to ease the underlying "frustrations and tensions" that triggered the rioting. At week's end, the mayor announced he would press for state enabling legislation to let Omaha ban race bias in housing.

Then, the 61-year-old mayor entered a hospital to rest from the job he doesn't need—but that needs a man like him.

Crawford hopes to upgrade Inland Homes prefab line

"Buying upward is today's trend," says W. Hamilton Crawford, new owner of Inland Homes Corp. of Piqua, Ohio. "They [Inland] stayed in the low-cost market too long. We'll broaden the line and upgrade."

Inland's four plants manufacture houses selling from $9,000 to $25,000, but many go at $10,000 to $12,500. Revenue was $4.6 million, off 28%, and net was $101,922, off 74%, last year. Inland lost $82,718 in its April quarter.

Crawford is president of Crawford Corp. and Crofton Corp., which is building the new town of Crofton near Washington. He bought control of Inland from the estate of Co-founder Eugene E. Kurtz. Why?

"They have been in absentee ownership since Mr. Kurtz died in 1964," says Crawford. "I can give them a shot in the arm."

Four-bedroom houses take over Pittsburgh's market

One of the few depth surveys of a metropolitan housing market hints at what could be a national trend. It shows (chart, above) that houses with four or more bedrooms have more than doubled their share of Pittsburgh's market in the last six years and should account for 47% of the city's 7,000 starts in 1966.

The annual survey of Pittsburgh builders (238 this year)—made for Action-Housing Inc. by Housing Economist Uriel Manheim—also revealed that conventional construction is rapidly gaining favor over off-site fabrication. Of the builders reporting, 81% build conventionally—up from 56% in 1961. Other findings:

• Only one out of 15 buyers in the past year was newly married.
• Prospects are looking for glamour, omitting what the builders call real quality.
• Large-volume builders (50 units or more) dominate the market. Of 143 builders who put up 2,763 homes, only 20 accounted for 64% of the total.

OMAHA'S SORENSEN
After sleepless nights, a rest
Yes, to the builder who is constantly looking for new merchandising features, WILLIAMSON's new "Five-In-One" Yearround Indoor Climate Control Console should prove to be the hottest home feature for 1966.

Smartly styled and handsomely streamlined, the new "Five-In-One" is a furnace, humidifier, cooling/dehumidification unit and electronic air cleaner completely enclosed in a single casing. Best of all, the new "Five-In-One" costs less and takes less space than a combination of comparable capacity elements purchased as separate units and assembled into a total comfort package.

The WILLIAMSON "Five-In-One" is available for use with natural gas, L.P. gas or fuel oil. Heating capacities range from 80,000 BTU/H to 150,000 BTU/H. Cooling capacities available from 25,000 BTU/H to 57,000 BTU/H.

Regardless of your building plans for 1966, it will be worth your time to take a "look-see" at WILLIAMSON—the broadest line of quality heating and cooling equipment in the industry.

The Williamson Company
Dept. M-81
3334 Madison Rd., Cincinnati, Ohio 45209
(513) 731-1343
Three new approaches to urban renewal

They were announced in Oakland, Chicago, and Pittsburgh, and each is an ambitious experiment in its own right.

**Oakland:** The Beneficial Development Group-Sproul Homes syndicate closed a $1.7-million deal, buying a coveted 34.5 acres in the Acorn Project from the city's redevelopment agency. Plans call for a $15-million, 900-unit development, including 860 townhouses and a shopping center. Most units will be rented ($90 to $145 a month), but some will be co-ops. Sproul's participation marks a rare entry of a one-family-housebuilder into urban renewal. It is the first of Oakland's efforts to attract smaller residential builders into renewal. Contracts will be going out for 178 acres in the Acorn Project, an area of run-down Victorian homes adjoining the Acorn land.

**Chicago:** McHugh-Levin Assoc. launched an imaginative venture in social renewal—at last

Cleveland revamps

When hostile critics complained of something rotten in federally sponsored urban renewal, it was often with nose downwind from Cleveland's renewal program. And since 1961 when the city was first allotted $16.2 million for its 885-acre University-Euclid project, the conduct of administration has given the critics ample opportunity for howls of protest.

One example came in a May report by the U. S. General Accounting Office, made at the request of Rep. Charles A. Vanik (D., Ohio). In the core of Cleveland's renewal area, the festering Negro slum called Hough, the GAO came up with these findings:
- Rehabilitation work, to have been finished by 1967, is only 12% completed.
- Not a single new residential unit has been started. Original plans have been cut from 1,693 units to 1,229.

Even as the GAO report was being written, the city's urban renewal department was reorganized under a new director, Barton R. Clausen. But the sins of the forebears continued to return.

Still another blow came then from an unexpected quarter—the Cleveland hearings of the U. S. Commission on Civil Rights. To the embarrassment of the federal Housing and Urban Development Dept. (HUD), the most poorly kept secret in the city finally received official recognition: for three years, in direct violation of renewal regulations, Cleveland had not enforced the housing code in Hough. Ugly charges were aired that the city ran buildings down purposefully to lower their sale value at demolition time.

Stung by the findings and fearing a wholesale smear of urban renewal, HUD Secretary Robert C. Weaver resorted to an extraordinary move: He threw an investigative task force into Cleveland and last month (together with Clausen and Mayor Ralph S. Loecher) came up with a short-term, 16-point program to salvage the city's renewal program. To give Cleveland a new start, the city must:
- Incorporate rehabilitation standards into its renewal program by November.
- Correct housing-code deficiencies and enforce the code vigorously.
- Begin intensive rehabilitation by September and demolish 50 vacant city-owned buildings this month.

Even as work began, the ghetto erupted: Hough was torn by two nights of riots that left two persons dead. It took 1,600 National Guardsmen to restore order.

**Pittsburgh:** The Pennsylvania Railroad revealed a plan to tear down and rebuild a drab 148-acre industrial area, transforming it into a model downtown business and residential district (photo, right). The project, six times larger than Pittsburgh's famed Golden Gateway, will be financed by the railroad. Final plans and costs aren't in yet, but the estimated cost of land alone is $40 to $50 million.

A complex proposal that contractors guarantee 1,600 hours of work yearly to unions surfaced last month as Labor Secretary Willard Wirtz's answer to wage inflation in the building industry.

Contractors aimed a volley of criticism at details of the Wirtz plan, but Wirtz stood firm. Seasonal building work, he insisted, must be spread throughout the year. Wirtz regards the hire-in-summer, fire-in-winter pattern of many U.S. builders as a luxurious habit they can no longer afford. He is already asking U.S. agencies to space bidding for building and highway contracts over 12 months instead of bunching them in the spring. New technology and building methods have made obsolete reluctance to build in winter, he argues.

By his new prescription, Wirtz clearly aims at countering labor's argument that union tradesmen need hefty hourly wage settlements to make up for the seasonal pattern of their work. Settlements last year averaged 3.9% vs. 3.2% guidepost.

To rescue the crumbling guidepost, Wirtz stepped into a bitter New Jersey contract dispute after contractors and Operating Engineers Local 825 had agreed upon a 9% hourly wage hike in January. For three months he and New Jersey Labor Commissioner Raymond Maley probed the seasonal pattern of building before making their proposal last month. They called upon contractors to guarantee 40 weeks—or 1,600 hours—of work to union members who had worked more than 700 hours in the industry the previous year. Employers would pay 20¢ hourly for each manhour worked to finance a new development corporation that both parties would set up. When work slackened, the development corporation would undertake a wide range of public projects and thereby provide new jobs.

But contractors object that the development company might become a public company competing with themselves.

A developer's past is now prologue with FHA

To smooth the wells raised by brickbats from Sen. John Williams (R., Del.), FHA now requires builders, investors, consultants, and apartment packagers to tell all about their past experience with the agency when seeking mortgage commitments. Specifically, they must give details of any mortgage defaults in previous ventures.

Using General Accounting Office reports, Sen. Williams had shown that some FHA district offices had insured apartments sponsored by persons or groups who had defaulted on other projects in other areas. Sen. Williams, meanwhile, accused FHA of losses "far greater than they are admitting publicly" on foreclosures. In the last six months of 1965, he charged, FHA lost $3,328 per unit on 4,491 resold apartment units and $2,909 per house on 24,073 resold houses. He said FHA lost 45% of its original mortgage amount on apartments.
The new look in homework,
(it's called the snooze)

This homeowner doesn't do much around the house. Vinyl is the reason. Windows, for example. Frames, jambs, and in one type, the entire exterior cover is made of Geon vinyl. These won't need painting or freeing because they won't swell or warp. Even after years of use, they can be as beautiful as the day they were installed with just an occasional washing. Furthermore, they resist weather, fire, denting.

Siding of Geon vinyl beautifies new and older homes—and minimizes upkeep. Add gutters and downspouts that won't rust or rot and shutters that need no paint and you have yourself more snooze time—or play time.

So, whether you buy, build, or remodel, be sure to consider building products made with Geon vinyl.

B.F. Goodrich Chemical Company
3135 Euclid Avenue, Dept. H-6
Cleveland, Ohio 44115

I'd like to see manufacturers' literature as follows: □ Vinyl siding □ Vinyl clad windows □ Windows - vinyl components □ Vinyl gutters and downspouts □ Vinyl shutters.

Name ____________________________
Address __________________________
City _____________________________
State _____________________________
Zip _____________________________
Holiday Innkeepers show way for Medicare-center builders

Two Midas men from Memphis who made their Holiday Inns this country's top motel success story have now begun building medical care centers. Because Wallace E. Wilson and Kenmmons Wilson have seldom been known to bet on losers, builders interested in profitable new ventures will surely pay heed.

Homemounter Wilson put up the first Holiday Inn in Memphis in 1952 after a cross-country auto trip left him dismayed with the state of the nation's motels. In 1953 he entered partnership with Johnson, a small-house mass producer already widely known as "that prayin' millionaire from Memphis." By 1965 their Holiday Inns of America Inc. was earning $4 million a year on $74 million in gross revenues from $87 inns. As a further testament to its success, it had initiators in virtually every state.

Now the two friends have organized Medcenters of America to build convalescent shelters that will care for inpatients between hospital exit and normal life reentry. The program is one of the first big entries in any of our markets anywhere—indeed, it had admittees in virtually the state of the nation's motels. In "We priced defensively to avoid the possibility of loss," explains Advance's president, Irving Rose. "We accepted the risk of losing volume to do this.

"We've never been out of the market and we won't be. We'll take any mortgage in any of our markets anywhere—at the right price."

The big Detroit mortgage banker—fifteen initially chained with $836,133,000 in servicing—set records in profit from operations despite the least favorable mortgage market in its 27-year experience. Earnings for the year ending April 30 were $601,199, or 85c a share, compared to $523,053, or 74¢ a share a year earlier. Volume in mortgages closed was actually down—$208,328,843 compared to $210,214,291. The company opened two new offices, now has 17.

**Building stocks.** Under the impact of tight money, House & Home's monthly index of 74 building stocks dipped from 6.03 to 6.52. Several sat. issues gave up a full point, among them the First Charter and Financial Federation holding companies on the West Coast. The averages:

<table>
<thead>
<tr>
<th>Building</th>
<th>5.46</th>
<th>5.15</th>
<th>5.45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefabrication</td>
<td>2.78</td>
<td>2.48</td>
<td>2.34</td>
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<tr>
<td>S&amp;L's</td>
<td>4.32</td>
<td>4.09</td>
<td>4.26</td>
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<tr>
<td>Mortgage banking</td>
<td>11.92</td>
<td>11.20</td>
<td>10.35</td>
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<tr>
<td>Land development</td>
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<tr>
<td>Average</td>
<td>7.18</td>
<td>6.83</td>
<td>6.52</td>
</tr>
</tbody>
</table>

is expected to produce a blueprint for builders interested in taking advantage of the Medicare legislation (News, Sept. 63). Because the company will be the general contractor for up to 400 licensee-owned centers, it will have to become a building of major proportions.

**California to Boston.** Four licensed Medcenters, with 346 beds, are already in operation in Houston, Tex.; Santa Clara, Calif.; and Wilmington and Winston-Salem, N.C. Four others, with 345 beds, are being built under license commitments in Columbia, S.C.; Lebanon, Tenn.; Hopkinville, Ky.; and Evansville, Ind. Licensed centers, with 517 beds, are planned in six more locations, and deposits have been received for another 29 subject to feasibility studies.

But Medcenters, Inc., wants to build and operate four centers of its own, and that will cost $5,250,000. It will offer 150,000 shares of stock at $10 a share, the rest of the money in mortgages.

"The company anticipates that substantial additional debt and equity financing will be required from time to time," Medcenters says. It lists earnings at $749,268, with 305,000 shares outstanding. It has posted no earnings results for the four licensed centers now operating.

The first company-owned center will be a six-floor facility with 270 beds in the Memphis Medical Center Project. The four-acre site alone will cost $477,000, or about $1,800 a bed.

A center with 186 beds will go up in Nashville, Tenn., and another with 248 beds in Boston. The fourth location, for 186 beds, is undetermined.

**Lease terms.** The company's standard license fee is $100 a bed or $5,000, whichever is lower. Their one-half percent of the revenue received by the licensee.

Medicare will pay the major part of "extended care" up to 100 days for elderly persons after three days' hospitalization. Centers will serve younger patients too.

**HOUSING'S STOCK PRICES**

[Table with stock prices for various companies, including building, prefabrication, mortgage banking, and other sectors.]

**LAID DEVELOPMENT**

<table>
<thead>
<tr>
<th>State</th>
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<th>6¢</th>
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<tbody>
<tr>
<td>Atlantic Imp.</td>
<td>17¢</td>
<td>4¢</td>
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<tr>
<td>Canvasser Imp.</td>
<td>14¢</td>
<td>4¢</td>
</tr>
<tr>
<td>C. &amp; H. Imp.</td>
<td>11¢</td>
<td>3¢</td>
</tr>
<tr>
<td>C. &amp; H. Imp.</td>
<td>14¢</td>
<td>3¢</td>
</tr>
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**SHORT-TERM BUSINESS LOAN RATES**

<table>
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<th>Loan Size</th>
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<tr>
<td>$1-10</td>
<td>6.05 (4% off)</td>
</tr>
<tr>
<td>$10-100</td>
<td>6.05 (4% off)</td>
</tr>
<tr>
<td>$100-200</td>
<td>6.05 (4% off)</td>
</tr>
<tr>
<td>$200 and over</td>
<td>6.50 (4% off)</td>
</tr>
</tbody>
</table>

Source: F. Reserve Board, April.

**WILSON and JOHNSON**
Two youngsters and a tricycle (150 lbs.) are easily supported by $\frac{3}{16}$" PPG Herculite K Tempered Safety Glass from a Safety Shield door.

You've got a strong selling point with Safety Shield patio doors. They’re made with PPG Herculite® K Safety Glass.

And they’re backed by heavy advertising in national publications reaching your best home-buying prospects. Four-color, full-page advertisements in Reader's Digest, Life and other important magazines are getting the word to the home-buying public.

Install patio doors made with PPG HERCULITE K Tempered Safety Glass. Use the Safety Shield emblem. Point it out to your prospects. It assures them that they can have all the fun of indoor-outdoor living in complete safety. Ask your patio door supplier for the details or write: Pittsburgh Plate Glass Company, One Gateway Center, Pittsburgh, Pennsylvania 15222.
What are your treatment plant needs?

Smith & Loveless "Oxigest®" sewage treatment plants are "sized" to fit the many requirements of residential and commercial developments located beyond municipal sewage facilities.

The factory-built "Oxigest" ranges from 20 to 350 persons per day, with parallel installations offering even greater capacities. The factory-fabricated, field-erected "Oxigest" serves up to 50,000 persons per day.

"Oxigest" sewage treatment plants provide dependable, odor-free, nuisance-free domestic sewage treatment - require little land, and can be installed close to occupied buildings.

Builders and developers will profit by seeing our color-sound movies of "Oxigest" sewage treatment plants. There's no obligation.

Prefabbers shuffle top staff job

J. A. Reidelbach Jr., a six-year veteran staffer of the Home Manufacturers Assn., resigned last month as HMA executive vice president. He announced no immediate plans but indicated his long affiliation with both the home manufacturing and construction industries would keep him close to the general building field in some formal capacity. Reidelbach, a registered professional engineer, was HMA technical director before taking full charge in 1963.

HMA directors named James L. Dooley of Louisville as his successor. Dooley, who assumed his duties immediately, has been active in public relations and trade association membership development and services.

HMA President Ralph Lester of Continental Homes is aiming at quadrupling HMA membership from its April level of 50 commercial affiliates who specialize in houses; M.A.I.s continue as appraisers of industrial and commercial property as well.

Horton's Society, an outgrowth of house appraisers for savings and loan associations, said the anticipated recognition of the residential specialist as a professional in his own sphere alongside the broader-based appraiser created the climate for union.

But amalgamation could provide an unexpected dividend: stronger enforcement of ethical standards for appraisers.

Appraisers have been taking their lumps recently; demand for appraisers is high and "the practice is now attracting those jackals who smell good fees," stated the Institute's Horton in opening talks. Disclosure of fraudulent valuations to obtain inflated mortgage loans last year (NEWS, Feb., May '65) has spurred drives to license appraisers in some states.

Appraiser groups smoke peace pipe to end house valuation confusion

For more than 30 years, lenders and builders wanting a house valued have been able to pick between an M.A.I. appraiser (Member of the American Institute of Real Estate Appraisers) or an S.R.A. appraiser (a Senior Residential Appraiser who belonged to the Society of Real Estate Appraisers).

Last month the two trade associations began talking amalgamation to clear away the confusing verbiage. Observers gave the move a good chance to succeed, largely because both association presidents - Harry R. Fenton of AIREA and Edward B. Horton Jr. of SREA-favor ending the division.

The associations appear to have hurdled the stumbling block in previous merger efforts - how to classify persons qualified to appraise only houses. Fenton's Institute ended a time-honored shibboleth and agreed to admit "residential specialists" who specialize in houses; M.A.I.s continue as appraisers of industrial and commercial property as well.

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Red Cedar Shingles: Symmetry to set off a bold design.

The peculiar symmetry of red cedar shingles is an interesting thing to ponder. They can be applied to microscopic tolerances, so clean of line that a bold design will practically leap out at the beholder. And yet, beneath it all, they radiate a warmth and shingle-by-shingle individuality that makes a bold design easy to meet and easy to live with. Further, red cedar provides the kind of toughness and reliability that helps a client enjoy his investment to the fullest. You'll find detailed information on Certigrade shingles (and Cert-Split handsplit shakes) in our Sweet's catalog listing, 8d/Re. Or give us a call, or write.

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NEWS

GOP Home Loan Bank Board seat opens as deLaittre departs for MBA

The White House is searching for a Republican to occupy a key minority spot on the three-member Home Loan Bank Board, supervisory agency of the nation’s $130 billion s&l industry.

The vacancy opened when John deLaittre, a member since 1962, told President Johnson he did not seek reappointment when his term expired June 30.

DeLaittre will become executive vice president of the Mortgage Bankers Assn. Nov. 2, succeeding Samuel E. Neel, Neel, the association’s general counsel for 14 years, took on the extra chore of executive vice president in the spring of 1965 until a permanent staffer was chosen.

No stranger to mortgage lending, deLaittre, 57, was president of the Farmers and Mechanics Savings Bank in Minneapolis before joining HLB B, and 1959-60 president of the National Association of Mutual Savings Banks.

The unceremonious resignation of James E. Lash last month from the executive vice presidency of Urban America Inc. surprised everyone, most of all his successor and close friend, William Slayton. But suave Ua President Stephen R. Currier wasted no time on niceties in explaining the change as a personality and policy conflict.

Purely Currier: ‘It was in the cards that we’d have to have a new executive and a new look at the field. Mr. Lash felt his services were superfluous.‘ (‘Al- so,’ he added, leaving a foot of room to read between the lines, ‘there was another conflict.’)

Lash’s walkout revealed the not entirely harmonious rumble of policy realignment that had been going on since last December when Urban America was formed by merging two civic groups (NEWS, Feb.). Action Inc., founded 12 years ago and staffed by mortgage lenders, deLaittre stirred controversy a year ago by suggesting in a Los Angeles speech that lenders might hold builders to a 30-day inventory of unsold houses (News, April ’65). The warning came too late to prevent overbuilding in California (see p. 82).

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Said Currier: “We have a very different and larger program here than Action’s.” Said Lash: “I am interested in what . . . private business can do . . . to solve urban problems and improve urban amenity.”

Slayton’s star rose as quickly as Lash’s fell. Quitting his maligned job as director of the Urban Renewal Administration only last March to formulate an idea center for Ua, he was quickly named Lash’s replacement.

With the reorganization nearly complete, Ua will be moving the bulk of its activities to Washington, with the particular aim of working closely with hud. Ua’s local development services division will use its million-dollar budget to release “hundreds of millions more” in federally insured mortgages and interest and rent subsidies. Ua’s magazine, Architectural Forum, will remain based in New York.

Slayton is currently organizing Ua’s upcoming national conference on urban problems, called “Our People and Their Cities.” At this conference, to be held in Washington Sept. 11-13, Currier will formally announce the revamped policy of Urban America.

DIED: George H. Knott, 60, who built The Mortgage Banker magazine from a newsletter to the respected journal of the Mortgage Bankers Assn. in 31 years as editor, June 25 in Chicago.

New Gemstone! Rich appearance that's a "first" in asphalt tile!

Give your model homes the luxury look—but at asphalt tile price! The exceptional surface of Kentile Gemstone actually rivals more expensive floors. For commercial use, too. Ask your flooring man.
36" Base Cabinet has full width roll-out shelves.

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Lazy Susan has easily accessible metal shelves and convenient self-centering closing action.

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Unlimited decorating effects can be achieved by replacing these panels with figured glass, decorative laminates or screening and many, many other inexpensive materials available at your local stores.

See the Provincial, Traditional and Colony Line Cherry Kitchens at your nearby Kemper Distributor (He's in the Yellow Pages) and write us for your free, full color kitchen and bathroom vanity and lavanette catalogs.

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Mortise & tenon construction assures maximum cabinet strength.

Special 3 point suspension system, heavy duty nylon rollers and unique...
Hydronic systems start here...

Heating/Cooling systems using water as the medium of heat transfer require precise control of pressure, temperature and hydraulic balance. Bell & Gossett makes the accessories you need from Pressure Reducing Valves to maintain system pressure to Booster Pumps, Thermostatic Indicators... to Triple Duty Valves used for final balancing. This “package” of control devices from a single manufacturer makes buying easier... assures true design performance because they are built to work together.

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For more ideas on how to sell the fashionable homemaker, write to Residential Lighting Division, Thomas Industries Inc., 207 East Broadway, Louisville, Kentucky 40202.
The men in front of The "OVERHEAD DOOR"

Select The "OVERHEAD DOOR" and get much more than just a door. Get the industry’s widest choice of materials, styles, sizes and designs. Get the dependability of the finest electric operator, perfectly matched to each individual door.

Fully transistorized, portable transmitter opens and closes garage door automatically by radio control from your car.
also stand behind it.

Get the experience of the company that originated the upward-acting door.
Get the confidence of the firm that's built more than eight million doors.
Get the service of the largest, finest, network of factory-

Get the number of your minutes-near distributor listed under "OVERHEAD DOOR" in the white pages of your phone book. Give him a call and get an expert.
For more of what's behind The "OVERHEAD DOOR",
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Counterbalance design for easier opening. Longer life because it’s made of the finest materials. Easier sales because it’s a name known and trusted since 1921. The “OVERHEAD DOOR” and electric operator save you time and money because they are installed, warranted and serviced by your local factory-trained distributor of The “OVERHEAD DOOR”. Insist on the genuine and original. Get The “OVERHEAD DOOR”. It’s the door you can stand behind; because we do. For further details call your local distributor listed under “OVERHEAD DOOR” in the white pages of your phone book; or refer to our catalogue in Sweet’s Architectural File. Another open and shut case for The “OVERHEAD DOOR".
BUSINESS IN THE MAKING

House & Home presents locations, sponsors, architects and estimated costs of representative new projects costing over $500,000 as gathered by ENGINEERING news; Dick Co., division of McGraw-Hill Inc. to alert builders, lenders and contractors to new business.


Robert E. Smith
Vice-President and Manager

NEW "STRUCTURE PACKAGE" GIVES TENANTS QUIET PRIVACY AND SECURITY IN HIGH RISE APARTMENTS

If you've had any thoughts about building a high rise or medium rise apartment, you'll want to know more about this package.

It is a combination of design, construction and tenant benefits that accrue from the use of new structural units. These include a new lightweight steel frame, a new combination concrete and steel frame, and new approaches to wall-bearing construction, along with new Flexicore precast concrete modules.

With any combination of these systems you get a first class structure, yet the cost is low because the decks are prefabricated and go up fast.

You can get a one to three month earlier occupancy and this means money in the bank to you.

But best of all you will have happy tenants who keep your place filled. Why happy? Well, they will have floor-to-floor quiet, and a feeling of substantial security. Their insurance will be low and so will be yours.

All in all your building is one that will continue to bring in a substantial return for years and years to come.

I'm sure you would like a 12-page report on an outstanding Baltim­ oree development of firming construction. Just write for Americana Report, and show it to your architect. The Flexicore Co. Inc., F.O. Box 825, Dayton, Ohio 45401

Robert E. Smith
Vice-President and Manager

Write for Americana Report.
“He’s out to lunch.”
“We’ll send someone out next Tuesday.”
“Sorry, he’s no longer with the company.”

“He’s on another line—can you hold?”

“He’s in an important meeting. Can you call back later?”

“Don’t call us, we’ll call you.”

“You’ll have to call the Service Department.”
The run-around. Can you afford it?

Builder Bernard Jaffe can't. That's why he buys Bryant heating and air conditioning.

He knows that our Distributor or Dealer will follow up after the sale.

If even the slightest problem develops, he'll have Johnny-on-the-spot service.

Jaffe's used Bryant heating and cooling equipment for his last four apartment projects in the Norfolk, Virginia area. By the end of 1968, he plans to build five more projects with a total of 1892 apartment units. And heat and cool them all with Bryant.

And good service after the sale isn't the only reason why. He also likes our competitive prices. Our versatility that meets all his design and construction requirements.

Bryant makes all kinds and sizes of units. Heating and cooling. Gas and electric.

So why not look into Bryant for your next job? Remember, you can get almost anything from Bryant. Except the run-around.

For more details, see your Bryant dealer, distributor or factory branch. Or write Bryant Manufacturing Company, Indianapolis, Indiana 46207.
Free booklet tells you how to use central air conditioning to close more sales

PLAIN TALK FROM DU PONT

ABOUT CENTRAL ELECTRIC AIR CONDITIONING

Selling more homes more quickly is important to you ... air conditioning can help you do it. Central electric air conditioning is a reality of modern living. Almost one out of every four new residences constructed in 1965 was centrally air conditioned. Make sure you are armed with the facts you need to cash in on all the sales advantages central air conditioning has to offer.

Get the booklet "Plain Talk From Du Pont." For your free copy, mail the coupon.

HARRIS BONDWOOD

Hardwood flooring since 1898

And no wonder. Thick, solid hardwood all the way through. BondWood parquet is designed for adhesive installation over concrete or wood. It's permanent, too. After years of hard wear, BondWood retains its original beauty with inexpensive refinishing. There's nothing to replace. And no other parquet on the market offers so many different woods and patterns. Best of all, BondWood is just one of the "beauties" in the exciting Harris line. Mail the coupon below for a FREE full color brochure that gives all the facts about versatile Harris Flooring.

BUREN


HARRIS MANUFACTURING COMPANY

Better things for better living...through chemistry

Du Pont Co., Room 4221A
Wilmington, Delaware 19898
Please send me a copy of your booklet on central residential air conditioning.

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COMPANY ________ ADDRESS ________
CITY ________ STATE ________ ZIP ________

Circle 50 on Reader Service Card

FREE FULL COLOR BROCHURE.

NAME ________ COMPANY ________
TITLE ________ STREET ________
CITY ________ STATE ________ ZIP ________

HARRIS MANUFACTURING COMPANY

DeP. 1106, Johnson City, Tenn.
Please send me FREE FULL COLOR BROCHURE.

Send to: FREE FULL COLOR BROCHURE

HARRIS MANUFACTURING COMPANY

Hardwood Flooring Since 1898
Parquet • Colonial Plank • Strip • Stairway

Circle 51 on Reader Service Card

HOUSE & HOME
Not enough pressure?

The Bell & Gossett Pressure Booster Package will solve your domestic water pressure problem. Eliminates storage tanks, requires minimal installation space... automatically maintains system pressure within 5 psi regardless of fluctuating suction pressure or system demand!

This Package comes all assembled and wired on a common base... just connect suction and discharge piping and make electric power hook-up, and unit is ready for operation. Pressure Booster Package has B&G centrifugal pump driven by a constant speed motor through a variable speed fluid-driver with modulation by a simple proportion control.

Available in three basic models: Simplex, Duplex Alternating and Duplex Staged & Alternated (for maximum operating efficiency, stand-by capacity and increased equipment life). Triplex models also available. For all the facts, call your B&G Stocking Representative—he's listed under PUMPS in the Yellow Pages. Free copy of Bulletin A-505 available from ITT Bell & Gossett, Fluid Handling Division, Morton Grove, Illinois, Dept. 10P.

“50 Years of Quality, Leadership and Service”

Put B&G pressure booster to work!

BELL & GOSSETT

A DIVISION OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

In Canada, contact ITT Industries of Canada, Ltd., Guelph, Ontario
Prospects said, "We want homes designed for

DEMAND AAMA QUALITY CERTIFIED

"AAMA Quality Certified aluminum prime windows and sliding glass doors are low maintenance—they end painting, never swell or rot. We use them on our most expensive homes."

LLOYD BOOTH
Past President,
San Antonio Home Builders Association
Director,
Texas Home Builders Association
Director,
National Association of Home Builders

*NAHB Research—San Antonio
Texas Parade of Homes, May, 1965
low maintenance."* Switch to aluminum and...

WINDOWS and SLIDING GLASS DOORS!

only AAMA members offer aluminum prime windows and sliding glass doors with

✓ CONSISTENT QUALITY
✓ PRE-SOLD BY NATIONAL ADVERTISING AND PUBLICITY

INDEPENDENT LABORATORIES VERIFY RIGID STANDARDS COMPLIANCE

Metal thickness is carefully measured.
Windows are tested for water resistance and air infiltration.
Framing dimensions are checked.
Concentrated load tests are performed.

millions know the AAMA Quality Certified seal!

ADVERTISING
this year in BETTER HOMES & GARDENS, HOUSE BEAUTIFUL, AMERICAN HOME, and HOUSE & GARDEN—publications read by your best prospects for new homes. Last year, the AAMA seal was also nationally advertised on NBC Television's popular "Today Show" starring Hugh Downs.

PUBLICITY
telling the AAMA Quality Certified story is appearing everyday in national magazines and your local newspapers. AAMA publicity also is regularly being featured on local radio and television programs. This constant stream of publicity keeps your prospects aware of the AAMA seal as an assurance of quality.

ARCHITECTURAL ALUMINUM MANUFACTURERS ASSOCIATION
35 E. WACKER DR. • CHICAGO, ILL. 60601
This bestseller owes much of its success to artful stage management

With 53 sales in four months, the split level shown here is the most popular of five models offered by La Paz Homes at Mission Viejo, a California new town.

The four-bedroom house, designed by Architects Naegle & Malone of La Jolla, is a good value for the price: 1,862 sq. ft. for $26,500. But in addition, La Paz set off the model with imaginative landscaping and furnishing items:

A long front terrace, plus planting beds and potted plants, ties the house to its gently sloping site and enhances its curb appeal. For extra greenery, a lawn was planted where there would normally be a paved driveway.

A rear terrace, also landscaped with planting beds, shows the opportunity for outdoor living on a small lot.

Inside, casually arranged books on a wall of shelves provide an informal, lived-in look in the living room.
Quicker sales at higher profit levels with competitive costs.

You can bet on it! Houses sell faster because Torginol seamless-waxless floors provide the modern flair for fashion that wins milady her position as leader of the coffee-cup set. Torginol sells because it’s beautiful, practical and offers unlimited decorative designs and colors. You can give her the elegance and formality of a Roman palazzo in her entry way and warmth, comfort and resiliency in a virtually maintenance free gay rumpus room. Because Torginol is seamless and waxless her floor care is reduced to the quick swish of a damp mop.

It’s a matter of record too that Torginol is so versatile it can be applied anywhere inside, outside; even poolside. Wherever used you can count on years of sparkling beauty because it’s virtually stain, scuff and skid proof. Selling houses or floors is always easier with competitively priced Torginol. Our national network of 5 plant facilities and more than 15,000 trained applicators is eager to help you solve your flooring problems. For additional information without obligation and a FREE full color brochure, fill in the attached coupon.

Torginol of America, Inc. - C-3
1708 Gage Road
Montebello, Calif. 90640

Name ____________________________
Street ___________________________
City ___________________ State ______

TORGINOL
Aristocrat OF SEAMLESS-WAXLESS FLOORING
MONTEBELLO, CALIF. • LONG ISLAND, N. Y. • ATLANTA, GA. • CHICAGO, ILL. • DALLAS, TEXAS
Some builders think drab windowless baths help sell new homes.

In the past two years, as a matter of fact, more than 1000 builders became first-time users of an ACRYLITE® Skywindow. And the reason why, in a great many cases, was to solve the problem of windowless bathrooms.

An ACRYLITE Skywindow installed in the ceiling gives you all the sunshine you want, and the privacy you need. You know what sunshine does to an interior bath. Fixtures sparkle. Tiles gleam. The entire room takes on an open, airy feeling, a fresher, more hygienic atmosphere.

People will pay a little bit more to have a bathroom like that, rather than one that's never seen the light of day.

So, if dim, windowless bathrooms (or kitchens, attics or interior halls) are clouding up your sales picture, brighten them up with ACRYLITE Skywindows.
But they're beginning to see the light.

They install easily in any roof, are leak-proof and shatter-resistant. Never need replacement. In fact, we're so sure you'll want to re-order after trying one, we're willing to meet you half way on the price of your first.

Just fill in this coupon, and take it to your building supply dealer, or mail to American Cyanamid Co. We'll sell you an HS2432 ACRYLITE Skywindow at half the regular price.

SPECIAL INTRODUCTORY OFFER — ACRYLITE® SKYWINDOW (Model HS2432) AT HALF PRICE!

MR. BUILDER: REDEEM THIS COUPON TODAY!

AMERICAN CYANAMID CO., BUILDING PRODUCTS DIVISION, 595 NORTH AVE., WAKEFIELD, MASS. 01880

TO THE DEALER: This coupon authorizes you to sell to the builder an ACRYLITE Skywindow (Model HS2432) at $23.16 (half the suggested list price.) Return coupon to your distributor, and he will replace the unit at half your regular cost.
SPARKLE! These are the new Flair fittings, by Kohler. Of diamond-bright acrylic.

SPARKLE! Clean of line, crystal clear, Flair fittings have a gem-like radiance.

SPARKLE! Flair fittings add the crowning touch to Kohler fixtures. Great with the new accent colors!

SPARKLE! Sparkling ads featuring Flair fittings are selling your customers now.

SPARKLE! Flair fittings are genuine Kohler fittings, through and through... acrylic and brass in the traditional quality of Kohler.

ADD SPARKLE TO YOUR SALES...ADD FLAIR!

**FLAIR FITTINGS**

**KOHLER OF KOHLER**

Kohler Co., Established 1873, Kohler, Wisconsin

ENAMELED IRON AND VITREOUS CHINA PLUMBING FIXTURES • ALL-BRASS FITTINGS • ELECTRIC PLANTS • AIR-COOLED ENGINES • PRECISION CONTROLS
Now! RCA WHIRLPOOL
Central Vacuum Systems
to give your homes
more buy appeal

Here's a new convenience that adds almost irresistible appeal to a home! Women love the fact that there's no messy bag to empty with an RCA WHIRLPOOL central vacuum system...no recirculation of dust...no heavy machinery to drag around...no loud cleaning noise. And they can see that it cleans really clean because of its tremendous, constant suction and outside exhaust. Even men are impressed by the entirely new areas of usage it opens up... whisking up workshop shavings, picking up grass clippings from the patio, emptying ash trays, lifting heavy dirt from garage floors.

Easy to install! The RCA WHIRLPOOL central vacuum system is simplicity itself to install. And no major modification of plans is necessary to install it in any home you build, even if the decision to add the system is made after the house is sold.

A choice of two systems! The RCA WHIRLPOOL central vacuum is available as a dry pickup system which has a dirt collecting receptacle. Or there is a wet pickup system in which dirt is flushed away...it's self-cleaning. The wet pickup system can also be used to carry away scrub water or spilled liquids, a convenience women find hard to resist!

A top-quality product backed by national advertising! Women recognize the RCA WHIRLPOOL brand name for quality and dependable service. And they're hearing about the new RCA WHIRLPOOL central vacuum system in a schedule of 12 ads appearing in national consumer publications this summer and fall. Your prospects are going to be asking for it...make sure you can offer the RCA WHIRLPOOL central vacuum system in your homes. Mail the coupon today!

Get in on the ground floor with this exciting new convenience that can help you sell more homes! Send for the complete story today.

Central Vacuum Systems Dept.
WHIRLPOOL CORPORATION
Administrative Center
Benton Harbor, Michigan 49023
Tell me all about RCA WHIRLPOOL central vacuum systems and the profit opportunities they offer.

Name__________________________
Title__________________________
Business Name__________________
Address________________________
City________________ State____ Zip____

It's easier to sell an RCA WHIRLPOOL than sell against it!

RCA WHIRLPOOL Appliances are products of Whirlpool Corporation, Benton Harbor, Michigan.

Trademark ® and RCA used by authority of trademark owner, Radio Corporation of America.
We've got your number...the very lighting fixture you need for that job...plus the digits you dial to get delivery on the double.
The “cover-to-cover” distributors on this page carry every fixture in the Progress catalog all the time. A phone call gets them for you!

### ALABAMA
- Birmingham: Lighting & Lamp Wholesalers, Phone: 203-3454
- Mobile: R. Stewart Electric Supply, Inc., Phone: 47-4181
- Phoenix: Royal Lighting Fixture Co., Phone: 504-2150

### ARKANSAS
- Elkhart: American Electric Supply Co., Phone: 727-2734
- Little Rock: National Electric Supply Co., Phone: 304-5496

### CALIFORNIA
- San Diego: Consolidated Electric Dist., Phone: 324-6213
- San Francisco: G. C. H. Co., Phone: 421-2445

### CONNECTICUT
- Danbury: Capital Light & Supply Co., Phone: 527-8143
- Manchester: Electric Wholesalers, Phone: 528-3434

### DELAWARE
- Slovak: Mortgage Electric Co., Phone: 431-8529
- Wilmington: T. R. Lambert Supply Co., Phone: 372-5501

### COLORADO
- Denver: Central Electric Supply Co., Phone: 266-3211

### FLORIDA
- Jacksonville: High Electric Supply Co., Phone: 792-9411
- Tallahassee: Hughes Supply Co., Phone: 64-1179

### GEORGIA
- Savannah: Consolidated Southern Electric Co., Phone: 602-5656

### ILLINOIS
- Chicago: Electric Supply Co., Phone: 342-6446

### INDIANA
- Anderson: Allen Electric Co., Phone: 888-5030

### MARYLAND
- Baltimore: Bellnap Hardware & Mfr., Phone: 584-1214

### MASSACHUSETTS
- Boston: Ralph Wilbur Electric Co., Phone: 435-8102

### MICHIGAN
- Detroit: Central Electric Co., Phone: 324-2036

### MINNESOTA
- Duluth: Northern Electric Supply Co., Phone: 512-8051

### MISSOURI
- St. Louis: E. R. F. Sherman Co., Phone: 565-2847

### NEW JERSEY
- Newark: Keene Electric & Phila. Phn., Phone: 323-3216

### NEW YORK
- New York: People’s Electric Supply Co., Inc., Phone: 95:7235

### OHIO
- Youngstown: W. E. French Electric Co., Phone: 658-3143

### OKLAHOMA
- Oklahoma City: People’s Electric Supply Co., Inc., Phone: 95:7235

### PENNSYLVANIA
- Pittsburgh: Associated Electric Supply Co., Phone: 218-3105

### TENNESSEE
- Nashville: Allied Electric Supply Corp., Phone: 240-1121

### TEXAS
- Dallas: Electric Supply Co., Phone: 793-7431

### VIRGINIA
- Richmond: Eastern Electric Co., Phone: 474-4411

### WASHINGTON
- Seattle: People’s Electric Supply Co., Inc., Phone: 95:7235

### WISCONSIN
- Milwaukee: People’s Electric Supply Co., Inc., Phone: 95:7235

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### OREGON
- Medford: Westphalage Electric Supply Co., Phone: 573-4556

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P.S. If you don’t have Progress Catalog 108, drop us a line. It contains an enormous selection of fixtures at the world’s most sensible prices.
It's no secret how remodeler Norm Woodley saves money with Andersen Windows

Just ask him!

Over the past 20 years, Norm Woodley has built a solid reputation as a superb remodeler and as a man who readily speaks his mind:

“I figure a man gets what he pays for. A cheap price buys a pile of junk. It buys trouble. Pay a little more for Andersen quality and you make money on the deal.

“There's no fiddling around with Andersen Windows. They're easy to set. You just put 'em up and nail 'em in. They come off the truck square and true. Ready to go. I save time. Lots of it.

“Another thing, I can get the size and type I need. Never have to make do with a window that's awkward or doesn't fit the job.

“Then there's those darn callbacks. I've had my share of them with cheap windows. And they can cost a man plenty. But on my Andersen Windows, I remember only two complaints in 20 years. Both minor condensation problems that were easy to iron out.

“Price? Like I said, you get what you pay for. Besides, my customers know Andersen Windows. They recognize them as quality, and they're happy to pay the little extra that Andersen's might cost.

“And let's face it. They help me leave a nice looking job behind . . . doggone important if you're going to make money in this business.

“They're easy to operate. They're weathertight. What more can you say?”

Very little, Norm. Except to remind you that there are 6 beautiful types to choose from (hundreds of sizes).

And now there's a completely new Andersen Perma-Shield™ line of windows and gliding doors. They combine the insulating value of wood and the lifetime maintenance savings of a rigid vinyl shield.

They don't need painting. Nor scraping. Nor rubbing down. And their armor-like finish won't pit nor corrode.

You can see them all at your Andersen dealer or distributor. Let him show you all the reasons why Andersen Windows can help you make more money in remodeling. Andersen Corporation, Bayport, Minnesota 55003.

*In Canada: Perma-Sheath™

Andersen Windowalls™
Window Beauty is Andersen
Upper left. Wall of Andersen Gliders helps make porch a year-round, lake-view room.

Upper right. Divided light Andersen Casements complement a traditionally styled living room.

Left. Elegant half bath is enhanced by small Casement unit.

Right. Doesn't this Casement bay-window combination brighten a cheery dinette?

Below left. Casements flank picture window in this dramatic treatment.

Below right. Window seat makes a perfect spot for a young girl to dream her dreams.
Are new towns just oversized subdivisions with oversized problems?

H&H: May I congratulate you on your brilliant study of new towns [June], a typically timely and thoughtful article. May I, at the same time, offer a strong dissent to the conclusions you reached.

You have taken seven basic problems which you find new towns have in common and illustrated them with data from various new-town projects. But not all new towns have had the same experience, and if Reston, Va., is run through the gamut of the hypothetical seven—which for reasons of space was obviously not possible in the article—the picture appears somewhat brighter than you painted it. Let me briefly illustrate, using the seven categories used in the article:

1. Location. Reston is located precisely where a new town (satellite city) is supposed to be on the Year 2,000 Plan for the Metropolitan Area of Washington approved by the National Capital Planning Commission.

2. Financing. While it is true that money was hard to come by in the early days of new towns—as with so many new ideas—those days are over.

3. Sales. Our pilot-project phase was planned to prove the market for us and has served its purpose well. We know we can sell townhouses, rent apartments and commercial facilities, develop lot sales and industrial properties—and are working successfully in all those categories.

4. Industry. "It's needed most in the early stages, and that's when it's toughest to get," you write, Perhaps. Yet we had industry before we had houses built, and today we have four industries in operation, three more ready to build on land they purchased, and many more in various stages of negotiation.

5. Government. Can a developer ask more of a government body than to create an entirely new zoning ordinance category so that he can produce a master plan for an entire community based on completely new concepts? I think not, and that's what the Fairfax County Board of Supervisors did for us.

6. Who builds? We made some mistakes, to be sure, but our construction division is now first-rate. Private builders are competing with us on land we sold them—which is good for them, good for us, and good for Reston.

7. Residents. An independent survey by Carl Norcross, published in the Urban Land Institute's News and Trends in City Development, said, "The replies are probably the strongest testimonial for planned, open-space communities that can be found anywhere. Reston buyers are exuberantly enthusiastic."

By your scorecard, then, we have had seven hits, some runs, and a couple of errors.

A more meaningful standard for judging new towns is to ask how far they have come in the timetables they have set themselves or had set for them. Reston was conceived as a 20-year plus project and the first years are obviously the most difficult. How are we doing after five years with over fifteen to go? The answer: We are doing very well indeed—even surprisingly well. Analogizing a new town to a subdivision is like analogizing space flight to the airplane—just isn't the same thing at all. Reston is not an oversized subdivision, and it makes a great deal of economic sense.

Robert E. Simon Jr., president
Reston
Reston, Va.

H&H: You laid the issues squarely on the line and raised the right questions in the right places. You also touched on a basic point—namely, just what is a new town?

If the term is to have any significance (beyond simply being a promotional gimmick), I think that the sooner it is given a definitive meaning, the better. An over-simplified definition might be "an identifiable and more organized congregation of homes and people with appropriate community facilities and services and developed around or based upon an economic activity."

The key here is economic activity, which should be the town's reason for being. In this respect, we tend to forget that the new town in America is really not new. One of the best new towns of the 20th century is Kingsport, Tenn.; another is Longview, Wash. Although frowned upon today as paternalism, the best new towns of the 20th century is	

Max S. Wehrly, executive director
Urban Land Institute
Washington

H&H: You have done a fine job of assembling a great amount of information and have made some points that will be helpful to people throughout the industry. Just to set the record straight, I would like to point out that financing for the land acquisition of Columbia was arranged entirely with Connecticut General. The total financing of $50 million, which brought the Chase Manhattan Bank and Teachers Insurance & Annuity Assn. into the picture, was not arranged until December 1965. In other words, the $50 million and the three lenders were not involved from the beginning.

W. Scott Dirch, director of information
Community Research and Development Inc.
Baltimore

H&H: You are to be commended on your concise and comprehensive review of new towns and their growth pains. Those intending to venture into this phase of land development should learn valuable lessons from your article.

Although you indicate that the problems of financing and sales apply particularly to projects of more than 6,000 acres, these problems can equally hinder projects of half this size. Our recent involvement in several projects in the 2,000-to-3,500-acre range leads us to conclude that far more attention must be directed toward feasibility studies, primarily to determine initial construction costs and realistic initial income.

Possible locations for such projects may well exist in complexes of several medium-sized communities, wide land at reasonable cost and existing stable employment, yet require new development stimuli.

Richard S. Beebe, director of planning
H. W. Lochner Inc., engineers
Chicago

Heating-fuel costs

H&H: Your June article "The War of the Heating Systems," criticizes electrical rate discounting. You will find, upon closer examination, that the electric-heat user pays as much for electrical lighting and appliance energy as the non-electric-heat user, because the starting blocks in both step-rate systems are about the same. What is even more to the point is that this is also true for most gas rates.

Regarding subsidies by electric utilities, in all fairness it should be stated that they are also offered by some gas utilities. Also, free fuel-storage facilities and quantity discounts are not unknown in the oil business.

On page 106, in the cost comparison table, is a reference to 80% efficiency for oil and gas systems. The accepted values for these are 75% for gas and 70% for oil. In the degree-day formula for calculating fuel consumption, a constant of 24 is used. The electric utilities use a constant of 17. This obscure detail is the same as reducing the efficiency to a more realistic 17/24 x 70% = 50% for oil! Thus the equivalent cost of gas and oil in this table should be changed considerably.

Another criticism of this table is the direct fuel comparisons. Electric heat is a different...
Shouldn’t you include better heating in your options to today’s buyers?

A hydronic system can swing the sale!

More and more builders are “sweetening” their sales appeal with buyer options. Why not offer one that really appeals to comfort-conscious buyers—a quality hydronic heating system? This modern version of hot water heating puts a clean, even wall of warmth around the home. There are no drafts, hot spots or noises. No decorating problems. All these points make mighty fine listening to the smart second- and third-home buyers you deal with in today’s market. They’ll certainly be impressed if they have ever lived with a poor heating system. And here’s the best news: Hydronic heating can be competitive with warm air. Two men can usually install it, complete, in a single day. The new boilers, of sturdy cast iron, go almost anywhere. They take only 2 by 3 feet of space and are available for gas or oil. The trim, wall-hugging Heatrim* baseboard panels for circulating hot water take no room space at all. The lady can hang floor-to-ceiling draperies and place her furniture as she pleases. Before you make another start, see your American-Standard contractor for the facts about the new equipment and installation techniques that make American-Standard hydronic heat competitive with warm air. Or write American-Standard, Plumbing and Heating Division, 40 West 40th Street, New York, N.Y. 10018.

*TRADEMARK AMERICAN STANLEY CORP.
different fuel, a different system, requiring a
different environment, thus not subject to this
type of comparison. This is a favorite trick
of the anti-electric-heat people. Electric
utilities do not claim lower costs. When ap
plied properly, electric heat is a quality sys
tem, and it is fairly competitive.
In spite of the apparent bias in your ar
ticle regarding costs, subsidies, and promotional
practices, you do convey the thought, whether
intentional or not, that electric heat, total
comfort with warm air, and the heat pump
all rate high technically.
F. T. Ritter, director of technical services
Metropolitan Edison Co.
Reading, Pa.
H&H did not criticize rate discounting by elec
tric utilities. We described it as an effective
incentive for winning over homebuyers to a
particular fuel or heating system. Our re
port does not pass judgment—either implied
or stated—on any kind of heating subsidy or
any other sales or promotion practice in the
heating industry. The fuel-cost comparison
table, as the article points out, is reproduced
from a card published by the Better Heating-
Cooling Council. It is presented as a current
example of heating-fuel sales promotion by the
hydronics spokesman—not as a guide-
line. Mr. Ritter’s statement that “electric
utilities do not claim lower costs” is some-
what at variance with much of the electrical
industry’s promotion literature.—Ed.

Alternatives to realty taxes?
H&H: Allow me to make a few comments on
the property-tax “muddle” [News, June].
Most students of property taxation agree
that real estate taxes should be greatly re
duced because they discourage residential
construction, increase the cost of home own
ership, and impair the quality of our hous
ing. But how can cities and counties bring
in the greatly increased revenue needed to
discharge their responsibilities?
Many tax experts advocate broadening the
tax base but don’t tell us what taxes should be
used. City income taxes, if permissible, will
drive residents out of the city. Payroll taxes
are inequitable because they impose a burden
on earned income without taxing unearned
income. Business taxes will drive business out
of the city. Gasoline taxes are often pre
empted by the states and used for highway
construction. There remains only the sales
tax as a major source of revenue. Yet sales
taxes are in many instances used by the states.
Moreover, there is a definite limit to the rev
enues that these taxes can produce because
the rates cannot be increased ad infinitum.
So it seems to me that no tax expert has
yet come up with the proper answer to the
impasse.
HERBERT BAB, economic adviser
Statewide Homeowners Assn.
Los Angeles

FHA market study
H&H: The voice of local criticism has been
raised in protest against FHA’s market analysis
of the Cincinnati area [News, May]. Our re
ports on the vacancy situation have been sub
mitted to FHA with requests for a new study
to reflect the true picture and help avoid a
housing shortage in some market segments.
Vacancies here are at their lowest rate in
five years, and the favorable trend has accel
erated during the past year. During the same
year the area’s nonagricultural employment
has increased by 17,300 jobs. Despite an FHA
forecast of decline, construction of new rental
units in Hamilton County for 1965 was 16%
above the average of the last five years. FHA
had suggested no new rentals would be re
quired for three years.
RICHARD G. COLEMAN, director
The Better Housing League
Cincinnati

FHA foreclosures
Builder Robert Seabury suggested (Letters,
July) revisions to FHA’s methods of selling
foreclosed houses, including pricing resale
above the level of existing mortgages in the
area and obtaining deficiency judgments
against walkaway homeowners. FHA Commis
sioner Philip Brownstein comments:
H&H: In a free market, supply-demand rela
tionships establish the price at which houses
will sell. Unfortunately, it sometimes hap
pens that property values in a given area
may dip slightly below some outstanding
mortgage balances. Conventional and FHA
-owned home sales will then take place at
that market level.
 Arbitrarily pricing FHA-owned homes at a
level above existing mortgage balances would
be artificial and would presumably reflect
the last sale rather than the market and com
parable conventional sales. On the other hand,
market-level sales should work to bring sta
bility and to restore the market.
As to what happens to the family after
foreclosure, mortgage companies may report
to credit bureaus the names of borrowers
 whose homes are foreclosed and also may seek
deficiency judgments against such bor
rowers. FHA does not require this, however.
Lenders are direct participants in the mort
gage transaction and in foreclosure proced
ures; FHA is not. Foreclosure action is a
matter of public record. If a person who
has permitted his home to go to foreclosure
again applies for a mortgage, the fore
closure history should be found by a routine
credit check.
Laws governing deficiency judgments vary
from state to state. For FHA to seek such
judgments would give unequal treatment by
the government to borrowers. Experience in
icates that the threat of lawsuits would have
little effect on preventing foreclosures. Loss
of income, death, ill health, and divorce are
major causes of foreclosure which would be
unaffected by the threat of suits.
FHA is very much concerned about the
housing situation in some market segments.

Letters continued on p. 58
Durasan means durability. It's the tough Gold Bond vinyl-covered gypsum wallboard. Amazingly scuffproof. Ideal for heavy traffic areas. And the gypsum-rock core is fireproof. Durasan® comes in 8 textured, standard colors; 4 woodgrain patterns. Special, custom or stylized patterns on special order. Contractors can install these beautiful 4'-wide ceiling-height panels at less cost than building bare walls and then decorating with vinyl. Or they can be used in the new Contempo-Wall Demountable Partition System. Cost of maintenance is negligible because stains and smudges wash right off. Ask your Gold Bond® Building Supply Dealer to show you the exciting new patterns. Or write to National Gypsum Company, Department HH-86G, Buffalo, New York 14225.

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Fred Falender Building Corp., Indianapolis, Ind.
Pease Homes, Hamilton, Ohio
Presidential Homes, Pemberton, N.J.

LETTERS

Newspaper: House & Home

foreclosure problem and the personal difficulty it causes families. The agency has forebearance provisions which encourage mortgage lenders to work out arrangements with borrowers in financial difficulty so as to avoid foreclosures. The system has helped many families to retain their homes.

Philip N. Brownstein, assistant secretary-commissioner
Federal Housing Administration
Washington

Open-occupancy

House & Home: More than any other publication in the nation, speaks to the leadership in the nation’s homebuilding industry—the very industry which, with its colleagues in real estate brokerage and mortgage financing has failed thus far to recognize the imperative of full equality of opportunity in housing based on law. The July editorial, therefore, reaffirms the need for leadership and its determination to serve the public interest.

There will, of course, be cries of outrage and criticism from those of limited views and selfish motivation. But this is the measure of leadership, and we here at NCDA commend you for it.

Jack E. Wood, Jr., assoc. executive director
National Committee Against Discrimination in Housing
New York City

Housing in the Great Society

House & Home: Your editorial on the Great Society and its attitude toward housing [June] deserves reprinting and submission to all members of Congress and all offices of the Housing & Urban Development Dept.

Sidney B. Posin, vice president
Arbor Homes
Waterbury, Conn.

Renewal in Tucson

House & Home: Your report of the appointment of Don Hummel (former mayor of Tucson, Ariz.) as assistant secretary of HUD [News, June] notes parenthetically that Tucson’s first urban renewal project was dropped by the city. To present the full story, the parentheses should be expanded to add that early this year Tucson’s electorate, in a bipartisan effort, resoundingly adopted an 80-acre urban renewal project which will entail an approximate $8-million federal grant. This project is a substantial part of the initial program, to which you refer, that was dropped in 1962 by Hummel’s successor administration without a public vote.

The fact that Tucson is the only Arizona city that has embarked upon urban renewal after several abortive attempts in Phoenix and elsewhere is a belated tribute to the efforts of Don Hummel—and evidence that Tucson has overcome the anti-federal government philosophy which had deprived Arizona cities of valuable federal assistance for too many years.

S. Lenwood Schorr
Schorr & Karp, attorneys
Tucson, Ariz.

Writer Schorr, Tucson’s special counsel for urban renewal, was previously assistant city manager and urban renewal director.—Ed.

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Architects and interior designers heartily recommend cedar linings—and women love its beauty, aroma and protective quality. Cedar sells itself...makes your job easier...more profitable!

Build cedar closets into your next group of homes—it costs less than ordinary plaster and only slightly more than drywall construction—and the difference in quality, looks and durability give you a decided edge over competition and your buyers a product of lasting satisfaction.

Millions of women across the country are being exposed to the virtues of cedar through intensive promotions in the following publications:

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- House Beautiful's Remodeling Guide
- House & Garden Remodeling Guide
- House & Garden Decorating Guide
- Better Homes & Gardens Home Improvements
- Home Modernizing Guide
These successful builders won't tell you all their secrets.

"Tappan has more to offer," says Irving Stitch, who shopped the market to find the best buy for his Capewell Towers high rise in Hartford, Connecticut. Each of the 200 units he built last year includes a Tappan range and hood. And they rent fast at $127 to $197 monthly.

"Finest equipment on the market," says Mike and Travis Henderson, builders of Henderson Hills in Oklahoma City. They produce volume sales (300 units last year) by offering top value. Standard equipment in a Henderson kitchen: Tappan range, hood and disposer.

"Tappan quality lends itself remarkably well to the decor of our homes," says Robert Carlson, custom home builder and developer of Royal Oaks in Wood Dale, Illinois. His magnificent homes, priced from $45,000 to $125,000, feature a complete kitchen of Tappan Time Machines.

"Our customers trust Tappan," says Manny Barenholtz, developer of Four Seasons in Aurora, Ohio. He has created an outstanding community by combining good taste with a flair for promotion. And by offering such exciting features as the incredible new Tappan Electronic Cooking Center.
But we'll tell you one.

They feature Tappan Time Machines.

**Tappan Twin-Temp Combo:** The refrigerator-freezer that's practically a supermarket in the kitchen. Over 20 cu. ft. of storage in only 36” of space. No defrosting ever. Classic built-in look, but a snap to install. Match cabinets with door inserts. Also in white, coppertone or Lusterloy.

**Tappan Reversa-Jet Dishwasher:** Sticky food can't hide from Tappan's powerful reversing spray arms. They wash in both directions to get dishes clean all over. Three models—all designed to save you installation time. Match cabinets with wood or choose Lusterloy, coppertone, provincial, turquoise or yellow finishes.

**Tappan Profile Range:** All the features women flip for at an incredible low price. DuPont Teflon liners in both ovens lift out and wash in the sink without scouring. Single oven or over-and-under models, gas or electric. Slip-in or drop-in installation. Available in white, coppertone or smart new Provincial styling (the new look that helps sell houses).

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TAPPAN
Time Machines

The Tappan Company, Mansfield, Ohio; Tappan-Gurney, Ltd., Canada
Kingsberry’s technique sold this beautiful home!

Through Kingsberry’s data processing computers, marketing experts are able to weigh the results from data furnished by the builder concerning his operation and are able to give him K-MAP recommendations for price range, forecast of sales, operation and cost budgets, and other factors that make Kingsberry easy to sell; individualized designs; superior quality; beautiful interiors and many exciting options.

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Big features like Kingsberry’s handsome, paneled dens; small features like Kingsberry’s new cultured marble sills for aluminum windows; bright features like a choice of luxurious lighting packages.

Now, for the outside, Kingsberry offers a choice of 100 designs at prices from $10,000 to $40,000, from modern to classic, and from contemporary to traditional.

Mail the coupon below and let K-MAP show you how to get into a higher sales bracket and increase your profit with models that fit your operation.

Mr. Robert Smith, General Sales Manager/Kingsberry Homes/Dept. HH-4, 5096 Peachtree Rd., Chamblee, Ga.
Please rush me information on K-MAP. I have lots ready to build on. In 1965 I built houses in the $ price range. I am interested in construction financing.

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On being an expert

'Twas brillig, and the slithy toves did gyre and gimble in the wabe:
All mimsy were the borogoves, and the mome raths outgrabe

—Lewis Carroll

Jabberwocky? You bet. And it's the kind of stuff you hear from the so-called experts who blame the high cost of housing on the industry's supposedly old-fashioned technology.

There's no question about the real concern of many people over the inability to house low-income families adequately. But the problems are not technical. And when next the inevitable argument about housing's high prices comes up, we in the industry can help clear the air by giving the experts some facts to chew on.

The first facts these experts should know (but apparently don't) are the costs involved in the price of a house. In 1966 the average single-family, merchant-built house will be priced at about $22,000. The price breaks down about like this: improved lot, $6,000; materials and products, $8,000; on-site labor, $4,000; financing, overhead, sales costs, and profit, $1,000 each (total, $4,000).

The direct cost of this $22,000 house (without lot) is only $12,000, and it offers about 1,600 sq. ft. of livable floor area, three bedrooms, two baths, and full air conditioning. The unit cost is only $7.50 per sq. ft.; there is no other system of building known that will come anywhere near that figure and still provide such comfort and luxury.

To go further, the mechanical elements in the house total $4,000 and break down like this: electricity, $400; plumbing, $1,000; appliances, $8,000; and heating and air conditioning, $1,800. If you exclude these from our structure its cost is only $8,000, or $5.00 per sq. ft. That's a very low figure for a finished, permanent structure.

The next facts our experts should know are the reasons we build as we do. We are the only industry that, in effect, builds a factory to make a product and, when the product is finished, tears down the factory. That sounds like a terrible waste of money, but it really is a rather efficient system. Our "factory" is an assemblage of men and materials at the site, not a huge building with a big capital investment in equipment. It makes sense because what we build is fixed in place—tied by its foundation to the ground. (And it is built to last much longer than any other consumer product.) So instead of moving our product along an assembly line, we keep it stationary and move the men and materials.

Although modern industrialization may not be too apparent to the casual observer of this process, it is, nevertheless, there. Highly mechanized earthmoving and materials-handling equipment, portable and fixed power tools, prehung doors and prefabricated windows, plywood, drywall, trusses, prefinished interior and exterior surfaces, and hundreds of other products of modern industrialization all make up the fabric of housing's own industrialization.

Should the experts belittle this explanation, consider the example of the automobile, which has to be marked up some 60% to pay for the overhead imposed by its factory and producer. Or consider mechanized house prefabrication plants: the prefabber must put less than a 40% total markup on his house package to compete with the conventional on-site subdivision builder. And since the prefabber's plant overhead alone requires at least a 35% markup, the big subdivider's on-site factory is usually a cheaper proposition than any other modern building method. And it certainly makes houses look like better buys than automobiles.

Finally, we should unburden our experts of all the fond illusions they carry around about the brave new world of space technology and esoteric chemistry. There are experts who will tell you that housing could be built for half the present price if we used entirely new materials and construction techniques. There are even some who will tell you that they know what these new materials are.

Well, these new materials have got to be cheaper than air, because if we were to omit completely the exterior walls of a single family dwelling, we could only save 5%. In other words, if modern technology could come up with something that would give us exterior walls for nothing, it would make little difference in the final price.

The truth of the matter is that the housing industry continues to cut every possible nickel from the cost of its product. For instance, the roof truss system in the latest NAHB Research House reduces the number of trusses by more than half and uses the same size members. Yet the net result is a saving of only a few cents per sq. ft. for the entire roof.

Let's let the experts know these things and maybe we can make some progress in cutting the real high cost items in housing: land, money, and politics.

—Richard W. O'Neill
On the following 16 pages you will see...

13 award-winning apartments and townhouses*

And it's no coincidence that they've all been highly successful in the marketplace—often in areas where other multi-family housing, offered at lower rents or prices, has gone begging.

The moral: Imaginative exciting design is a highly marketable—and often indispensable—commodity in today's apartments and townhouses.

To see how the award-winning architects created this commodity, turn the page.

*From the 1966 Homes for Better Living competition sponsored by the American Institute of Architects in cooperation with House & Home and American Home. (For details, see p. 81)
1. **STONE WALLS** and shingled mansard roofs maintain house-size scale in this large project.

2. **RAILED OVERPASSES** cross the inner courtyards, lead to upper-level units.

Rambling clusters give this project the appeal of small neighborhoods

And since each of the ten clusters contains ten or eleven units of differing sizes and types, the resultant variety of families makes it in fact a real neighborhood. Most tenants are professional people, but their professions range from engineering and sales through teaching, medicine, government and architecture, to artists, writers, airline pilots, and secretaries. Approximately 90% of the 107 units have been rented since their completion in December, and the developer (who has projects in 13 other states based on the same broad market appeal) now has another larger group of similar clusters under construction in another part of the 24-acre project. Rentals range from $140 for a one-bedroom unit to $230 for a two-bedroom 'penthouse' unit at the top of the hill.

**Honor Award.** Architect: Ireland & Assoc. Developer: Multicon. Location: Towson, Md.
3. STEPPED-UP BUILDINGS ascend the sloping site, have on-grade units at each level.

4. CARPORTS off inner courtyards have roof decks separated by extensions of carport dividers.

TYPICAL CLUSTER (see site plan, opposite) contains one-, two-, and three-bedroom units. Shaded sections refer to lower levels (see section, below), unshaded sections to upper units.
VACATION TOWNHOUSES, built of rugged materials to withstand weather, are clustered together along a strip of California coastline.

Seaside condominiums make the most of a narrow strip of oceanfront

The ten-unit cluster plan could ultimately allow the developer to put 137 vacation units on the 35-acre site. Each unit has been given a view of the ocean without sacrificing privacy, and each unit is a 24' cube with as few openings as possible except for skylights, bays, or glass-enclosed decks. Result: both privacy and protection from the almost perpetual winds off the ocean. There are also private walled gardens, greenhouses, decks, and terraces, most of them enclosed against the wind. Interiors are natural wood, and the redwood exteriors are left to weather. All of the first ten units, priced from $25,000 to $32,000, have been sold, and the next cluster is under construction.

NARROW BRIDGE leads from upper-level bedroom to bathroom and storage.

OPEN BEDROOM can be enclosed for privacy by lowering sailcloth suspended from skylight.

KITCHEN BLOCK open toward dining area, supports bathroom, balcony, storage area above.

COMMUNITY DECK, sheltered by surrounding townhouses (view A), provides wind protection.

GLASSED-IN DECK (view D in plan), provides sunlight, view of ocean, and wind protection.

OCEANFRONT ENTRANCE (view B) leads between houses to community courtyard (above).

GLASSED BAY on corner of one upper building
COMPACT PROJECT includes two 
joined buildings, each with two two-bedroom units, 
sheltered parking off the side alley (left), recessed upper deck.

How to put four patio apartments—
plus parking—on a 50' x 100' lot

Moreover, there's nothing cramped about this project.
Each of the four two-bedroom units has 840 sq. ft.
of living space indoors, a large patio or deck outdoors, and parking space in the centrally located carport on one side of the lower level. And each unit gains excellent privacy from well separated entrances, screened-in patios or decks, and wide overhangs at both levels.

Planned for a middle-income apartment neighborhood, the twin buildings are placed sideways, one behind the other, on the narrow lot to take full advantage both of the site and the existing alley along one side. Rentals are $175.


Photos: Katsumi Taniguchi

NARROW SIDE of project faces street. Entrances to rear and upper units are at right.

PRIVATE PATIO runs across rear of project with fenced-in service areas at either side.

UPPER-LEVEL UNIT has large living room with sliding glass doors to private deck.
A staggered plan gives these unusual vacation townhouses unusual privacy

Specifically, the setbacks of this seven-unit oceanfront building 1) decrease the areas of common wall, 2) provide private pockets for outdoor living, and 3) give each unit a feeling of separateness. More privacy is gained from the individual carports and entrances to the units. And the side-by-side bedroom balconies in the larger units are separated on both levels by an extension of the party wall and the continuation of the sloping roof line. The condominium units range from a 720-sq.-ft. one-bedroom unit for $16,500 to a 1,200-sq.-ft., two-bedroom, two-level model for $25,000. All were sold well before completion.

Award of Merit. Architects: Donald Blair and Saul Zaik. Developer: Salishan Properties, Inc. Location: Gleneden Beach, Ore.
These townhouses bring single-family living right into the center of town

They form the nucleus of the first village center of Reston, Va., a 7,000-acre new town 17 miles outside of Washington, D. C. One 34-unit section curved around a community plaza (above), has shops on the ground level, two levels of living above. A second section (right) and a similar section across the lagoon (see site plan) contain 41 three- and four-level units. Since their December opening, all but one of the over-the-store units have been rented at rates ranging from $125 for efficiencies to $250 for two-bedroom units. More than half of the townhouses have been sold at prices from $36,000 to $45,000, depending on size rather than location.


Balloones on the Plaza, separated by extensions of party walls, overhang the shops below and form a sheltered walk around the J-shaped center.

Photos: Bill Maris
**These townhouses expand—and upgrade—an existing rental project**

When the two-thirds-of-an-acre site was purchased, half of it was already occupied by a pair of six-unit apartment buildings. First, the architect—who was also the new owner—remodeled the existing buildings. Then he designed a staggered plan (lower right) to make the most efficient use of the remaining semi-circle of land. The new section includes ten townhouses—one-bedroom units near the ends of the semi-circle and larger two- and three-bedroom, two-level units in the center. All have individual carports and entrances along the curved street. Rentals range from $115 to $275, and the project has been almost fully occupied since its completion in early 1965.

**Award of Merit. Architect-Owner: Howard Barnstone. Builder: Metropolitan Builders Co. Location: Houston, Tex.**
REGIONAL FLAVOR of San Francisco in 1890s is carried out by shingled facades, tall windows, old-style porch railings, paneled or shingled garage doors.

High-priced condominium townhouses make the most of high-cost land

Six three-story units, each priced at $98,000, occupy a prime residential site which is only 105' wide and 137' deep (land plan at right).

The small site near downtown San Francisco, formerly zoned for three detached-house lots, is now divided into strips of land slightly less than 18' wide. Yet each unit has 2,165 sq. ft. of living space, plus a two-car garage and 350 sq. ft. of unfinished space on the street level. And despite the narrowness of the lots and the proximity of the houses, each house is almost totally private from its neighbors. Individual entrances are not only deeply recessed but also separated by street-level projections which enclose trash closets. On the two upper levels, both front and rear windows have been placed so that no unit looks into another unit or onto another unit's outdoor living area.

CHEERFUL ALCOVE, at far end of living room, overlooks garden and deck at rear of house.

OLD-FASHIONED DETAILS of interior trim show in paneled kitchen door and frame.

SERIES OF SKYLIGHTS admit daylight to dining room from upper-level light well.

DINING DECK serves both family eating area off kitchen and formal dining room (below).

FAMILY EATING AREA, beyond kitchen, is set in two-windowed bay facing street.

NARROW DOOR opens dining room to dining deck, with blank wall of next unit on one side.
A high-density project surrounds landscaped outdoor living

That is how the architect de-emphasized the project's density—72 units on 1 1/4 acres. He grouped the units in a triangle, placing 47 apartments on one side and 25 two-story townhouses on the other two sides. Inside the triangle he placed a landscaped area of trees and walkways with a swimming pool at the center.

Outside, the project is three stories high plus parking. But inside, from the garden area, the project appears only two stories high. Reason: the project is cut into a hilltop, and the grade slopes down from the rear of the units to the front. Rentals range from $100 for one-bedroom apartments to $325 for two penthouses. Townhouses are $180.

TWIN ROOFS on either side of the central court (plan, below) add interest to the exterior and to interiors of the four corner units.

A compact sixplex offers a variety of plans around a center courtyard

The plans were varied by changing the size and shape of living-dining areas, altering the type and placement of built-in storage, and by making a second bedroom convertible to a den. Private entrances from the central court contribute to the feeling of individuality in each unit.

The six units rent from $140 to $185, and although these are slightly higher rates than others in the same area, the small project (cover photo) has had a waiting list since its completion a year ago. This is the first building in a small (1½-acre) project which will eventually contain 15 more units—apartments like those shown here and townhouses.

UNUSUAL DETAILS are sloping, shingled roof caps over cantilevered balconies. Simple parapets match fences below and stairway enclosures.

Striking design draws tenants in an area where vacancies are the rule

This eight-unit project hasn’t had a vacancy since it was completed late in 1964. What’s more, it has had a constant waiting list even though most neighboring projects with lower rents are partly vacant.

Set back from two streets on a wedged-shaped, half-acre corner lot, the project looks like a single building. Actually, it is two identical L-shaped buildings sited so that the insides of the Ls form a central courtyard. Entrances to all units face the courtyard on two levels (as do the kitchen walls, bathrooms and storage). Living areas, faced away from the central court for privacy, have outdoor patios or decks screened from the street by fences or high parapets. Rents range from $150 to $185.

Here's faculty housing with three bedrooms renting for only $110

For that low rate, occupants of this ten-unit project near Kenyon (Ohio) College get many of the amenities of much higher-priced apartments. Items: third floor studies overlooking trees, private backyards with outdoor storage and big closets.

Rents were held down by careful planning, simple design, and the use of low-cost materials like plywood siding and concrete-block walls. The architect, who got the idea for these units from European townhouses shown in House & Home (July '61), found the land, arranged the financing, supervised construction, and now manages the project.

Builder: R. A. Bergs Inc. Location: Gambier, Ohio.

SLANTED WINDOW WALL in quiet top-level study provides view of trees, shelter from sun.

STAGGERED SITING allows more privacy for individual units that step up sloping hill.

REAR PATIOS are partly screened from neighbors by projecting walls and storage sheds.
A high-density rental project mixes apartments with townhouses

There are 22 units on the one-acre site—17 one-level, one-bedroom apartments and 5 two-level, two-bedroom townhouses. And despite the relatively high density, the units have plenty of outdoor living because most of them face outwards from the top of a bluff which overlooks Newport (Calif.) Harbour. What’s more, individual outdoor and indoor areas are relatively private because the units are staggered along two sides of the site. This arrangement reduces common wall areas, shields patios or balconies from neighboring units, and provides small shared entrance courtyards. Rentals at the project are from $145 to $230.


LANDSCAPED WALK leads past small inner court to 44-car, sheltered parking area.

RECESSED WALLS of these units near the formal entrance provide protection from sun.

PROJECTING WALLS between units increase privacy of outdoor living on two levels.
A three-level luxury project capitalizes on its prestige location

The three-levels—all identical to the plan above—let the developer put 15 two-bedroom apartments averaging 1,200 sq. ft. on a 65'x175' lot, formerly occupied by one house, in a high-income residential area.

There is a parking garage on a fourth (lower) level and a community deck on the roof. Each unit also has a private patio or balcony off the living room and one bedroom. Individual entrances are along one side of the building, and upper levels are reached by stairways at both ends or by a central elevator. Rentals—from $220 to $250—include carpeting, draperies, heating, and air conditioning.


Photos: Marvin Rand

This jury selected the 13 award winners

The jurors, who studied more than 100 townhouses and apartment entries in this year’s Homes For Better Living program, were (left to right): James P. Gallagher, senior editor, House & Home; Ensilie Oglesby, AIA, Dallas; Chairman John L. Schmidt, AIA, director of architectural and construction research, United States Savings & Loan League; Herman H. York (standing), AIA, New York City; Claude Oakland (seated), AIA, San Francisco; Alan C. Borg, building editor, American Home; and Edmund J. Bennett, builder, Bethesda, Md.
Nowhere in the U.S. is housing's market research more sophisticated and its merchandising more skillful than in California. Yet California homebuilding came into 1966 with 100,000 more vacant houses and apartments than are needed for normal market turnover.

The surplus, combined with tight mortgage money, accelerated a skid in the state's housing starts, and now experts look for only 100,000 starts this year—two-thirds below the nearly 300,000 units of 1963.

What's more, there are other strong indications of California's housing troubles. Items:

- The Los Angeles metro area, formerly the national leader in housing starts, has tumbled to third place behind Washington and New York City.
- Tight money has crippled the state's used-house market, blocking new-house buyers who would trade upward if they could sell old homes.
- A steady influx of repossessions has depressed the FHA homes market. Consistent sales of 245 units a month have failed to reduce a constant overhang of 4,200 unsold units.
- The 204 state-chartered savings and loan associations had $350 million worth of repossessions March 31. That is less than 3% of the S&Ls' specified assets, it is true, but it is an increase of 20% in three months.
- All 278 S&Ls lost $126 million in savings in the first five months, although they stanched the outflow in June. Only by raising savings dividends to 5 1/4% did they weather the first ten days of July, the post-dividend period when savings shop around for the highest yields.

The puzzler for housing men everywhere: How did California's savvy homebuilding industry get so thoroughly out of touch with its market?

The answer in a nutshell: overlending, overbuilding, and an almost mystic faith in population statistics that, at best, are turning suspect. Those three fundamental errors of practice and belief provide lessons for all builders and lenders because they reflect a basic lack of builder discipline and a failure by financial managers to police their own lending.

For a close look at what went wrong in California—and why—start reading at right.
The lenders' view: 'If you let them have the money, they'll build'

That's how President Bundy Colwell of the Colwell Co., in Los Angeles, probably California's most successful mortgage banker, explains the state's building spree. His stern judgment meets almost universal agreement among lenders.

"We all did it," says Charles E. McCarthy, vice president in charge of mortgaging for the Bank of America. "The S&Ls have been the obvious overlenders because of their tremendous growth, but banks did it and the insurance companies probably did it too."

The graph on page 82 restates McCarthy's thesis. Obviously persuaded in 1963 that California's impressive growth and population statistics would turn even more spectacularly upward, the state's S&Ls raised their construction loans—the advances made to finance builders putting up new houses and one- to four-family apartment buildings—to $2.5 billion, a 34% increase over 1962. The valuation of new private dwellings financed by all lenders (banks and insurance companies as well as S&Ls) leaped 25% to $3.5 billion, and builders put up 290,875 new houses and apartments. It was California's biggest year, and starts topped 1962's total by 22%. But housing demand ran below the expanded rate of homebuilding.

Throughout the 1960s annual demand, built on population growth and demolitions, has remained virtually constant at about 220,000 units. Looking at 1963's 290,875 permits in that context, the Bank of America's chief of national-regional research, Richard S. Peterson, observes: "Probably three-quarters of the net increase of 100,000 vacancies was started in 1963."

And there were other warning signs, even in 1963. Southern California, which builds 65% of the state's new housing, lost 40,000 aerospace jobs that year. In-migration not only failed to turn upward; it may have begun to ease. ("Those optimistic population forecasts we've been making are all wrong," says President Ray Edwards of Glendale Federal S&L.) Yet it was not until 1965 that production finally fell below demand and home buying began to catch up.

Lending and appraisal abuses abounded among S&Ls in 1963

Those abuses were detailed in House & Home's widely reprinted study of April, 1964, California's S&L Cliffhanger. The California associations, always high rate payers, increased net savings inflow to $3.2 billion in 1963—up 25% by comparison with a 15% gain for S&Ls in the rest of the country. The increase generated tremendous pressure to put the money to work, and the S&Ls' total loans soared 37% to $7.7 billion, even though former S&L Commissioner Frederick E. Balderston was about to warn: "Price inflation in housing has come to an end."

In most cases the faulty practices were due to inexperienced appraisers and to loan officers who could be manipulated by sharp builder-operators. In any case, the demand for production outgrew the ability to handle money.

Reforms came only after a Sacramento grand jury indicted one S&L president for illegal lending and demanded 17 fundamental changes in S&L policing regulations. The state subsequently instituted stricter appraisal supervision and, with the help of the California Savings & Loan League, wrote legislation bringing S&L holding companies under state audit control (News, July '64).

Some S&Ls also lost control of their checks on lending

And, Banker McCarthy now suggests, they did so without fully realizing it. S&Ls had based their single-family conventional lending on an individual buyer's potential...
CALIFORNIA, continued

income, a highly effective guide. But California’s housing mix shifted from 44% apartments in 1961 to 52% in 1962 and 59% in 1963. With multiples, the lending associations lost their close check on the prospect’s potential income.

Bankers generally, some of them doubtless out of pure envy, blame the San Francisco Home Loan Bank’s generosity for much of the S&Ls’ over-lending. The S&Ls argue that savings inflow, plus loan repayments and income from loan sales, covers most of their lending costs. Banks still point out that the Home Loan Bank pumped $422 million into California in 1963 and $464 million in 1964. It was not until this year (News, June) that the Home Loan Bank Board in Washington froze advances for speculative lending, and even then the San Francisco bank’s loans to the industry continued to rise because S&Ls needed money to meet withdrawals.

Now FHA housing also has troubles: repossessions outstrip resale

The agency repossesses 265 foreclosed homes a month but only manages to resell 245, and its statewide inventory of unsold units remained above 4,200 for the first four months of 1966.

Vice President A. William Barkan of San Francisco’s Wells Fargo Bank blames the agency’s policy of 3% downpayments, instituted by Congress in the 1950s, for many of the repossessions.

“Buyers regarded their obligation simply as rent,” he explains. “When they got tired of paying, they found it cheaper to walk away than to continue ownership. The practice was abetted by the mortgage secondary market, which bought the junk mortgages on these homes.”

Yet FHA and VA together account for less than 20% of California’s reality lending and last year FHA took in only 6% of the foreclosures in Orange, San Bernardino and Riverside counties.

Tight money may be a blessing since it imposes some control on builders

The big money squeeze of 1966 has affected California homebuilding in ways not generally understood. It has probably decelerated the repossessions, the industry by discouraging new starts and preventing additions to surplus.

“The current mortgage money shortage may prove to be a blessing in disguise,” says Economist James C. Downs in a reference to San Diego that applies with equal validity to the state.

Yet tight money was not primarily responsible for the big cutback in starts. “We are one state with a surplus,” says Economist Doug V. Cannon of the San Francisco Home Loan Bank. “Even without tight money, we would build far fewer homes in 1966 than in 1965.”

Credit severity is hurting in another way, though. President Howard Edgerton of California Federal State, the state’s largest federal and the second largest association*, explains that it has choked off the resale market and prevented a faster reduction of unsold inventory.

“It’s a vicious circle,” he says. “The poor boy who wants to buy can’t get the money by selling his old house.”

There is also a widely held misconception in financial circles—the idea that the flight of “hot” Eastern money is causing the California building slowdown. That is not true.

In April, for instance, out-of-staters withdrew slightly less than 1.5% of their deposits in California S&Ls. The ratio of total withdrawals to deposits was 2.2%. So Californians were withdrawing money faster than Easterners.

The basic cause of the overbuilding was too much money, too easily obtained and too freely dispensed.

* California has 204 state-chartered S&Ls that hold 67% of $25.8 billion in S&L assets. The 73 federals hold 33%.

These statistics show how California housing lost touch with its market

As the net increase in S&L savings tailed off, HCEO stepped up its advances to S&Ls (graph left). Despite the help, S&L construction loans may be off 75% from their 1963 peak (graph above). Much overbuilding centered in two to four-family units, (top right). At the same time, California population growth dipped in reports by the state Finance Dept. (bottom right).
Most lending experts accept the secondary factors—low equity, lack of loan control—as lessons for the building industry. But they return repeatedly to easy money as the deepest root of evil. Even S&L leaders now concede errors were made. "Yes," says the Cal Fed's Edgerton "1963 was the year of the major mistakes.

The builders' view: S&Ls financed too many neophyte builders

"Frankly, we like to operate in a market in which every Tom, Dick, and Harry can't get a loan from an S&L and compete," says President Eli Broad of Kaufman & Broad Building Co. Broad has always prided himself in doing well in a falling market, and now is no exception: In the six months through May, the company sold $7 million of houses in four Los Angeles-area subdivisions. As long ago as the fall of 1963, Broad predicted the red-hot Southern California housing boom would cool off (H&H, Oct. '63). Now, with his financing imported through Detroit and Eastern banks into 1967, he says his company "actually expects to benefit from the decline in housing starts, since the market demand is rapidly absorbing the unsold inventories of new homes and rental units... Builders who have relied on savings and loan financing are now having serious problems as a result of the S&Ls' inability to make new loans."

Broad's attitude typifies that of most other large California builders, almost all with financial connections through banks and insurance companies. They deeply resent the lenders' generalization that tars all builders with the same brush of overbuilding, and their resentment is tearing apart the easy relationship of former years.

"The use of federal funds in some state-chartered S&Ls has been a disservice to the industry," says Builder John D. Lusk of Whittier, a former bank lending officer. "If anything, this shows there is a big difference between builders. There are speculative builders who use various sources of financing and have kept their inventory under control, and there are builders who are no more than captives of S&Ls. And, if you notice, some S&Ls are getting into the tract business themselves—because they can make 10% on the land development and 7% on the home loans.

"I've had many opportunities to buy into S&Ls—and you can't be in both businesses."

Builder Ben Deane of Huntington Beach is not so critical of the S&Ls: "We're aware of all the abuses, and you can certainly argue they [S&Ls] deserve no sympathy. But if they lose their place in the mortgage market, the building industry is in trouble all over the country—and especially here."

In spite of the S&Ls' money problems, most large builders interviewed by H&H are busily grading streets, pouring foundations, and opening new model home areas. And they say their unsold inventory is at a minimum. For instance, San Francisco's Henry Doelger, a 600-house builder in 1965, had only 20 unsold houses on hand last month.

All builders freely admit there was overbuilding in booming 1963, but each maintains it was the work of others.

"Those were beautiful days," says President James G. Pollard of the Building Contractors Association of California, "our industry was so promising that it attracted great numbers of people, some of whom were ill-prepared for their venture into homebuilding. At least modest success was virtually assured for anyone who had a reasonable grasp of the business."

Adds Market Research Sanford Goodkin: "The majority of [unsold] inventory was made up of products that had weak marketability. They should never have been built, even if there were a proper demand. Many lenders were careless, as evidenced by the high percentage of scheduled items on their books."

"Internal momentum and lead time accounted in part for the substantial overbuilding in 1963 and 1964," says President Harrison Price of Economic Research Assocs., whose clients include Disneyland, Transamerica Corp., and the Irvine Co.

Neophyte builders splurged on duplexes and fourplexes

By all counts the outpouring of duplexes, triplexes, and fourplexes in California's 1963 boom was awesome. It accounted for 17% of permits in the state's seven largest met areas—nearly double the national share (see graph). In fact, these seven areas built an astonishing 37% of all the two- to four-family dwellings in the nation that year.

Now these small-scale rental units are turning out to be the biggest headache, according to Executive Vice President William Lund of Economic Research Assocs. Southern California's high apartment vacancy rate has been "skewed by the fourplexes, plus the duplexes and slums," says Lund. "Demand was—and is—strong for apartments at under $90 a month or over $135. The glut was in the $110 monthly range—the market was overbuilt by a factor of four."

In some instances, entire tracts of fourplexes went up. Some were rented, some sold to owners who would live in one unit and rent the remaining three—a typical mom-and-pop arrangement for landlords unable to hire professional managers.

Meanwhile larger apartment complexes came on the market. Result: Apartment vacancies climbed from roughly 10% early in 1963 to a high of 16% in September 1965.

Real Estate Market Analyst Jack Leonard of the Bank of America de-emphasizes the role of two-to-four-family units. "We haven't found a big vacancy factor in these units," he says. "The bigger developments with 10 to 50 units are the ones still standing with vacancies, especially in the higher rent range."

Soaring land prices forced builders to overprice their housing

Skyrocketing land values were a fact of life in California's housing industry. Fast-turnover speculators abounded, and some companies turned land speculation into a semi-scientific art (NEWS, Sept. '65).

The high prices—as much as $40,000 an acre—led builders to use higher-density plans or increase house prices. Either way, most builders now agree, a significant number of potential buyers were lost.

Today land prices are still high: Finished lots range from $5,500 to $9,500 in southern California, and one-family houses are seldom found under $21,000. So buyers must earn $700 to $800 a month.

Just when builders banked on faster population growth, it slowed down

The boom year of 1963 also turned out to be the peak year in the past decade's rate of population growth. But the ebbing tide caught builders unaware.

The downturn—from 612,000 in 1963 to 549,000 in 1965—is only now surfacing in estimates of the state Finance Dept. and federal Census Bureau. But state demographers have just estimated a slight rise to 563,000 for the year ending in June. Significantly, the bulk of the downturn centered in six big southern counties, where the annual rate of growth fell from 361,900 in the July 1963 year to 301,000 in the July 1965 year. The drop cut annual housing demand by some 16,500 units, a fact that builders now rue.

One result of slower population growth has been slower land sales. Builders are no longer bidding up the price of land for tract houses: "The prices are firm but the terms are soft," says Eli Broad.
The key lesson: 'Homebuilding needs a fundamental discipline'

So says William R. Mason, new president of the 88,000-acre Irvine Ranch, one of the few companies that plans its communities for years before letting builders put up a house.

"That discipline has to come at the lender level," says Senior Vice President William R. Schroll of the United California Bank in Los Angeles. "I have never felt we should expect them [the builders] to exercise the proper control."

California homebuilding's bitter experience in the midst of an expanding general economy also provides three other lessons for the whole U.S. housing industry:

1. **Even the best local market research must be improved**

California boasts some of the most sophisticated market researchers in the business. In addition to a host of private consultants, builders and lenders have formed two research organizations: the Northern California Real Estate Research Committee and the Residential Research Committee of Southern California.

Both committees issue sophisticated and comprehensive reports on their market areas every three months. But even their best was not good enough to alert builders and lenders to overbuilding.

Perhaps the weakest link is in population estimating. California's Finance Dept. maintains a cadre of population experts to chart the state's explosive growth as precisely as possible (because state tax dollars are apportioned by population). Those experts noted a slight downturn in population growth after 1963. But the bald figures (see above) may not reveal the full impact on housing. Reason: outside experts suspect—but can't prove—that lower-income families (hence not buyers of new houses) account for a growing share of California's in-migrants.

The federal Census Bureau added to the confusion last month by estimating the 1960-to-1965 growth of 13 counties (with two-thirds of state residents) at 12% (or about 53,000 persons annually) below the state Finance Dept.'s figures.

The state and federal experts have differed before, and the state's men have proved closer to the true population picture. A major reason is the state's power to compel cities to perform actual census and vacancy counts.

Whichever estimating team is correct, there is another fundamental problem: "Perhaps more important than the accuracy of population estimates is the fact they tend to have a three to six month historical lag," says Economic Consultant Harrison Price.

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**How California saved an S&L—and public confidence**

The last-minute rescue focused the attention of most of the $27-billion California S&L industry on the office of S&L Commissioner W. Sadler.

Sadler was under tremendous pressure to settle the affairs of the deeply troubled Van Nuys S&L, Ann., before July 1, the date that savers often collect half-year dividends and switch deposits for higher yields. Both the industry and its state supervisors recognized a danger greater than loss of Van Nuys' $120-million savings, a mere 5.5% of the state's S&L's assets. Any individual S&L's failure could well undermine confidence in the entire industry in the critical days when it was trying desperately to hold savings accounts.

"It was a psychological deadline," said Sadler's assistant, William F. Harrison.

**Months of concern.** As early as January Wall Street had heard reports of difficulty at Van Nuys, a subsidiary of Trans-Coast Investment, an S&L holding company. By March 31 Van Nuys' scheduled items—the index by which California measures the risk potential in mortgage portfolios—was 24.16% against a statewide average of 5.65%. Van Nuys had $50 million in foreclosures and owed the Federal Home Loan Bank another $50 million.

Merger talks were already under way with United Financial Corp., a Los Angeles holding company partly owned by Home

aPresident Howard Edgerton of California Federal S&L, the state's largest federal, and several other S&L's leaders deplored the tendency of financial writers to represent scheduled items as an index of potential loss. "Nothing could be further from the truth," one said. "Maximum potential loss will not exceed 20% of the book value of the items."

bOther recent mergers: Arrowhead S&L of San Bernardino, scheduled items 17.4%, into Howard Ahmanson's S&L; with 3.97%; Charter S&L of Bellflower (27.5%) into Belmont S&L, Long Beach; Corona S&L (18.36%) into Southwest S&L, Englewood.

Sadler and his staff were also up until after midnight the next night, and on June 30 financial reporters waited through the day for the announcement. But afternoon editions closed in New York, and there was still no word from Van Nuys, Editor Rochon, racing by helicopter to keep another appointment, landed on the Ambassador Hotel lawn next door to the commissioner's office, only to be told that Sadler had left seconds earlier for Long Beach and a last-minute conference.

**And then—Wellman.** By now news was leaking. Charles A. Wellman, former president of First Charter Financial Corp., a holding company, would become president of Equitable S&L in Long Beach (assets: $175 million). Equitable would buy $100 million of Van Nuys' prime loans and $20 million in cash and facilities. Equitable would pay nothing, simply assume Van Nuys' $120-million savings liability. Van Nuys would retain $60 million in real estate and delinquent loans and would cease to solicit savings.

"A very sensible solution," said the bone-tired Sadler when he finally submitted to questions. "It's a better answer than any rhetoric. I think people ought to stop worrying about this business."

Then he released the official news to the press. It made the late morning editions—dated July 1.
of Los Angeles. Neither Price nor other market researchers have yet come up with an answer to that one. And other data gaps are cropping up, too:

**Vacancy counts are still subject to error.**
As an indicator of apartment vacancies, the southern research group reports idle electric meters in suburban and urban apartment neighborhoods. The state's experts say idle meters are only a rough guide.

“Our actual counts show it can vary all the way from one to 3/4 vacant units for one idle meter,” says Demographic Analyst Richard Irwin. “The average is two for one.”

“That’s true,” says Southern Research Chairman Jack Leonard. “But if you look for trends in idle meters, it works.”

**Measuring unsold-house inventory is still cumbersome.**
The Southern California committee, again working through its electric utility, has developed a count of electric meters installed but never operated as a rough way of measuring completed but unsold houses. But this seems to have some margin for error, largely because meters are seldom installed until the builder has a firm buyer.

FHA, growing into a statistical service for the housing industry, each year counts the unsold houses in tracts with more than five houses. But such counts lag because they can be made only infrequently—every six months at best.

2. **Used-house sales are more important than builders had suspected**
California vividly demonstrates how dependent today’s builders are on the used-house market.

“The entire market hinged on a family move every three years—buyers could pyramid their equity,” says Marketing Vice President Michael Tenzer of Larwin Companies. “Now they can’t sell their houses as readily—and it costs 16% or 17% to sell. The real crux of the problem is the lack of equity when they pay the costs of a real estate brokerage fee and perhaps six to eight points on a mortgage to the buyer of the used house.”

The used-house slowdown is massive. Applications for FHA insurance, the best way to sell a used house, plunged 31% through May statewide. At the same time many S&L builders switched to FHA financing for new houses. So FHA new-house applications dropped only 3%, and FHA starts actually increased.

In both northern and southern areas deed recordings are off about 30%, and President Sid Wallace of Medeco Realty and Management Co., of Los Angeles, the sales arm of Willems & Bertisch, a general contractor and housebuilder, says, “We have practically halted sales of used houses.”

Wallace says tract builders and real estate agents have split into two camps: “Between these two there is fear and animosity. It’s two markets. But it should be one integrated market.”

Wallace is trying to combat the used-house slowdown by inviting 15 builders in the Woodland Hills section of Los Angeles to set up a cooperative sales office. Eight builders and three area realty concerns have shown some interest.

Cooperative sales efforts are in the forefront with other builders, too. Last month southern California’s biggest builders—Ben Deane, Ray Watt, and Lawrence Weinberg—joined in a buy-now ad campaign. And in June five builders—George Holstein, Lagerlof Construction, Country Club Homes, Green Valley, and FWHL Co.—jointly built a 15-house model home area called Dream Street.

More builders are also using trade-in plans. The plans let buyers move out of their old houses with ease, but they can recover no more equity than by reselling through normal channels.

A few builders are considering paying part of the FHA discount on an existing house for prospective buyers.

3. **The best cure for land speculation seems to be a soft housing market**
In the frantic building boom of 1963, land prices skyrocketed far faster than other building costs: builders were asked to pay $35,000 and $40,000 for subdivision land, more for apartment sites.

The epidemic of price rises focused attention on land assessments, and in Orange County a study found vacant land paying far lower taxes than land occupied by new houses or apartments. Reform pressure built up and this—plus a scandal in three major cities (NEWS, July)—combined to force a reform bill through the state legislature. The measure, just signed by Gov. Edmund (Pat) Brown, requires all property to be assessed at 25% of value.

But the slowed-down housing market has put the fast-turnover land speculators out of business more effectively than any assessment reform.

Today zoned apartment land is so plentiful its price has weakened in southern California. Prices of tract-house land are still firm, but “you can dicker on terms,” says one builder, simply because one-family homebuilding has come through the wringer as the most solid segment of California’s housing market.

**A bright tomorrow—in ‘67 California should be moving again**
The golden promise is still there. But economists lean to caution in their predictions, if only because this time they want to be sure builders heed the warnings.

 Says Security First National Bank’s Vice President Conrad Jamison: “The surplus has leveled off. The worst is over, [but] there is no economic basis for a significant recovery of residential building in the months immediately ahead... A year from now the industry could well be in a position to move ahead again strongly.”

Vice President Paul O’Brien adds: “We’ve taken our medicine. The patient has a bright color, and the future—beyond 18 months or so—looks excellent.”

The Bank of America’s Peterson is even more optimistic. With housing’s annual rate already running 25,000 units below 1965, he says “it is likely that 60,000 to 70,000 vacant units can be absorbed in 1966. If the trend continues, residential building can be more responsive to the basic underlying growth demand in 1967 than at any time in the last 2 1/2 years.”

**The big opportunity: studies hint it still may be in apartments**
Peterson allows for an overall population slowdown but says the growth of households will not slow as much as the rate of population increase. The fastest growing age group in the next five years will be the 20-to-40 segment, and the economist finds that the impact of this group’s family formations, when combined with rising incomes and the higher home-replacement demands generated by urban renewal planning, will boost basic housing demand to 240,000 units a year from 1967 through 1970.

And as just one little example of the opportunities awaiting tomorrow’s careful builder, Researcher Phil Sterling of Economic Consultants Inc., a Los Angeles housing study service commissioned by banks and savings, has this to say about Los Angeles County’s multiples:

“Of the 800,000 units, 11.5% were vacant in April 1965; 10.4% in January 1965 and only 8.5% in June 1966. By December that will be down to 6%, probably the lowest point needed for normal turnover.

“So we’ll have a roaring demand for multiples in the next year or so. The trend is in that direction. The nation’s 20-to-29 age group increased only 2.9% from 1960 through 1965; it will increase 6% from 1965 through 1970, and it is this group that needs apartments. Come on out.”
Can production-line methods put profits in rehab jobs like these?

Government housing agencies are hoping the answer is yes. For a year and a half they have been betting cash and time on the premise that remodelers' technology can be so radically improved that even slum rehabilitation work will become a safe, profitable investment.

Housing agencies want rehab to pay off because they want more remodelers to tackle it. Why? Rehab eliminates substandard housing in two to four months, while urban renewal—the alternative—takes years.

But bringing production-line efficiency to remodeling work isn't easy. In New York City, where the effort is now concentrated, there have been storms of publicity about how the streamlining could be done—but few results.

And the New York experimenting isn't lacking in money or talent. Three big building-materials manufacturers—Dow Chemical, U.S. Gypsum, and U.S. Steel—are working with Tishman Realty and Construction Co. to find better remodeling systems using their products. And a young innovator—Conrad Engineering—is trying out a spectacular new component idea backed by a $390,000 grant from HUD.

The spectacular idea—which the press jumped on a few months ago—is this: Cut an 8'x8' shaft through the roof and floors of a multi-story tenement, and drop in mechanical cores containing kitchen, bathroom, heating, and hot-water equipment—a core at each floor, stacked one above the other.

But the core, and several other ambitious proposals, have been slow to materialize. U.S. Steel helped to design and build the first version of Conrad's core (H&H, June), but shortly before it was to be tested, the steel core was shelved. And out of a host of suggestions for faster rebuilding of floors, walls, ceilings, and windows, only one—a lower-cost floor-leveling system—has proved to be a significant step forward (pp. 90-91).

Whether more of the New York experimenting pays off or not, the lesson is already clear: Remodeling work can be systemized and standardized, but not in radical ways. The production-minded remodeler who thinks small is the one who will increase his profits.

HOUSE & HOME got this reading after visits to three leading remodelers in three big cities. One of them is a manufacturer involved in the New York slum experiments. The other two are remodeling pros in completely different price ranges. Their ideas—starting on page 90—show how far remodelers can go in streamlining their technology.
CHICAGO FRAME HOUSE, a higher-cost custom job, was jacked down 3' and heavily altered. Remodeler: Old Town Contractors Inc. For Old Town’s production methods, turn to page 92.

NEW YORK TENEMENTS, a rehab experiment, get all-new interiors for $9,000 per apartment. Remodeler: U.S. Gypsum Co. For details of usg’s experimental approach, see pages 90 and 91.
Production-line rehab works best on low-cost housing in big volume

Low-cost work lends itself to systematizing because floor plans and finishing details are standard from one unit to the next. The two jobs pictured at the right are good examples.

One is a row of six-floor, 24-apartment tenements (upper photos) in New York City's Harlem; the remodeler is U.S. Gypsum Co., working through a local contractor. The other is a narrow street of two-story-plus-basement rowhouses (lower photos) in Philadelphia; the remodeler is Hertzfeld & Horowitz Assoc. In both cases, the buildings are completely gutted and given all-new interiors for a construction investment of about $9,000 per unit.

But the production methods differ because one job is experimental and the other is strictly an investment. U.S. Gypsum is seeking ways to apply its materials more efficiently to remodeling. Hertzfeld, selling to the Public Housing Administration, sticks to PHA's building code.

U.S. Gypsum's greatest success so far has been a mastic topping for leveling floors—a cheaper method than laying a sheet subfloor and then shimming. Old sagging floor joists are systematically straightened by new party walls (plans) to lift floors to near-level; then the topping is troweled on, bringing the floors to final level. For walls and ceilings, U.S. Gypsum uses drywall on metal furring, but is also going to try a new prefabricated partition system (drawing, far right).

Windows have been a problem for U.S. Gypsum because it is leaving the masonry facades of its buildings undisturbed, except for painting. To avoid leaving gaps that have to be patched, old window openings are being filled precisely with expensive custom-made windows. A possible solution, says U.S. Gypsum: a stock-size metal window with expandable fillers at top and bottom.

Hertzfeld is already using stock windows. Sizes are available that fit the old openings precisely in width, but must be filled at top and bottom. However, Hertzfeld covers the old building facade with stucco, so rough patching around windows is no problem.

Hertzfeld also manages to apply a few other stock components: prefabbed stairs, prehung interior doors, and wrought-iron stair-rail sections.

A private investor's approach—troweled-on cover-ups for

Photos: Jules Schieck

TIGHT LINEUP of narrow rowhouses is ideal for production-line work. Remodeler's ten-man crew works on 20 houses at once, which keeps subcontractors busy with no more than one trade in a house at a time.
for walls and ceilings, troweled-on mastic for subflooring

Photos: Richard Gray

**Mastic Subfloor**
of gypsum cement, asphalt, and sand can be troweled on to existing floor boards for 37¢ a sq. ft. Vinyl tile goes on top.

**Metal Ceiling Channels**
are nailed, with shimming, to old joints. Drywall is applied with self-tapping screws driven by power screw gun.

**Epoxy Wall Finish**
puts a durable surface in public halls. Before epoxy is applied, wall is stripped to brick, skim-plastered, and painted.

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**Loadbearing Party Wall**
serves to level floor above by raising joists. Photo shows party-wall soundproofing and new ceiling furring.

**Metal Wall Furring**
is nailed directly to old brick side wall. But when heavy shimming is required, wood furring must be substituted.

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**Studless Partition Panels**
prefabbed of ribbed gypsum will be tried, but variances in floor and ceiling level pose a big problem.

**Inside and Outside Walls, Windows and Doors in Stock Sizes**

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**Economical Window Switch**
makes use of stock-size window which fills width of opening. Bottom gap is filled with masonry, top gap with insulation and paper. Work can be rough because it will be stuccoed.

**Stucco Cover-Up**
instead of patching, eliminates all defects as well as ornamentation in old brick facade. Lath is attached to brick with masonry nails and three coats are applied: scratch, brown, and finish stucco.

**Pre-Hung Doors**
are used inside, but because old outside door framing and thresholds can often be saved, exterior doors are job-hung. Prefab wrought-iron railing (left photo) is preferred to wood because it saves time.

**Stucco Cover-Up**
instead of patching, eliminates all defects as well as ornamentation in old brick facade. Lath is attached to brick with masonry nails and three coats are applied: scratch, brown, and finish stucco.
Production-line rehab works on higher-cost jobs—if it's flexible

But developing any kind of standard production system for the middle- and upper-income remodeling market is tough. Customers' tastes and one-of-a-kind jobs tend to rule it out.

Five years of trying have paid off, however, for Remodeler John Halligan in Chicago's famous Old Town area. Halligan's Old Town Contractors Inc. does close to $1-million worth of remodeling annually—contract work plus apartment work for his own investment company. Construction cost per unit ranges from $7,000 to $15,000, but sometimes the sky's the limit.

Halligan caters to above-average tastes, and his work shows it. He preserves the charm of old buildings and blends it with new, clean-lined interiors. Yet, he manages to apply standard production economies on every job.

Halligan systematizes construction. He handles trim in several different ways—from junking to refinishing—so each piece on a new job is color-keyed with a paint mark to tell carpenters what to do with it. Old baseboard is pulled off right away—the space behind is a made-to-order raceway for new wiring. Old lath isn't stripped, and electricians don't cut wiring channels in it—they fish the wires instead.

Halligan systematizes finishing. All trim is stripped from around windows and doors, and new plaster is applied flush with the openings. Old doors are modified to suit modern decor by gluing on new veneers. New woodwork is blended with old restored wood by staining and waxing—not varnishing. Walls in high-use areas are covered with durable canvas-backed vinyl.

Halligan improvises and, in doing so, discovers new systems. He stocks a warehouse full of stained-glass windows, wrought-iron fencing, oak doors, and such oddities as church pews and 1,500-lb., cast-iron lamp posts—all salvaged from demolished buildings. Put to use, these antiquities become the trademarks of Halligan's jobs. Experimenting with T-astragal molding strips, he discovered an excellent way to make a luminous ceiling grid that can be stained to match kitchen cabinets (photo, far right).

But none of Halligan's production systems would pay off without meticulous planning. To see how he replans old buildings, turn the next page.
but the money they save shows up in finishing extras the customer can see

PRE-MARKED OLD TRIM—it's squirted with paint-spray can—tells workmen how to treat it. Different colors mean 1) leave in place 2) remove for use elsewhere in house, 3) save for warehouse stock, 4) discard.

PHOTOS: Oscar & Associates

ROOM-LENGTH WIRING CHANNEL is easily created by removing old baseboard. Channel is later covered by 1x6, plus quarter-round, or 1x8 milled to any style. Every job gets a telephone to speed communications.

LOW-COST WINDOW ADJUSTMENT—applying new stops to double-hung sash—restores smooth operation to old window and avoids replacement. On high-cost jobs, Halligan may save unusual old glazing and build new sash.

JOB-LAMINATED DOOR FACING of birch or walnut plywood converts one side of raised-panel door to flush style, so same door blends with both restored floor and stairs in public hall and modern apartment interior.

EXTENSIVE WIRE-FISHING behind old lath and plaster avoids extra work of cutting and refilling channels for switch and fixture boxes. When placing ceiling fixtures, Halligan’s electricians fish wires up to 50’.

VERSATILE ASTRAGAL MOLDING—normally used on double doors to conceal center seam—is adapted to luminous-ceiling grids, stained to match kitchen woodwork. Halligan uses T-astragal, rips off one flange for border.
Stickler for planning: How this remodeler packs profitable rental space into cramped old houses

"Space in old houses is critical. Replanning it always brings you back to the same problem: How hard can a room be squeezed?" So says Remodeler John Halligan (see p. 92), who is pictured above with his key planning tool: a cardboard scale model with walls joined by specially designed fasteners. Halligan manipulates the walls like a jigsaw puzzle to find space for the luxuries of modern-day living in buildings that were never designed for them. He also pastes in room colors and arranges scale-model furniture to make sure the rooms are large enough.

Halligan has a vast store of space-saving ideas. One of his latest: Remove the first-floor exterior wall of an old building and rebuild it several feet back from the sidewalk. Result: a setback for a small entry court. Another idea, not yet perfected: Install movable partitions so an apartment layout can be changed to suit different tenants' needs.

But Halligan's most important space-savers involve storage. In the three-floor job shown at the right, he had to deduct 9' at the second floor for a public stairway and inside hall. The floor is only 16' wide, so that left a 7' width for kitchen and bathroom. The tricks he drew on to solve this and other space problems are shown in photos on page 96 and 97.
Here's how Halligan worked three big apartments—plus stairs—into 16'x57' floors

WELL-PRESERVED EXTERIOR OF rough-cut stone (above) required no cleaning, but the frontyard was dressed up (below) by adding better wrought-iron fencing and laying paving blocks—both from Halligan's warehouse. Front steps were replaced by jacking up old railing posts and pouring new concrete under them. The big change was inside (see floor plans).
Halligan’s space-saving tricks range from cupboards in soffits to shelves behind heaters—

**Soffit Storage** makes fullest use of a compact corridor kitchen (a color-coordinated step ladder is included). Another important space-saver: an under-sink dishwasher—located under one side of a double sink so the housewife can conveniently rinse and load her dishes.

**Pocket Door**—a natural space-saver—is planned into virtually every job, particularly in tight kitchens that open off narrow halls.

**Builtin Wardrobe** fills one bedroom wall but is finished to look like furniture. Bifold luan doors are enclosed with matching paneling.

**Overhead Storage** is built into foyer closet of top-floor apartment. Old partitions were removed from stairwell to create visual space.

**Packaged Equipment** includes a mechanical work center recessed in countertop, left, under-counter lighting, and a radio-intercom.
'You've got to pack in storage space but create open space at the same time'

HINGED COUNTERTOP over low toilet tank allows for plumbing maintenance and permits counter to be built at same level as vanity top.

COMPARTMENTED BATHROOM makes the most of 8'x9' space. Soffit furred down over dressing table and tub helps create separate areas.

COMPACT HEATING UNIT fits into vanity front and is shallow enough so storage space inside vanity need not be sacrificed.

CLOSE FITTING results in fully equipped bathroom in odd-sized space—5'x11'. All fixtures are on one wall, divided by enclosed tub.
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Harry Slack, Southern California: “I use electric heat now because my customers prefer it.”

O. T. Fowler, Winston-Salem, N. C.: “99% of my starts in the last five years have featured electric heat.”

Charles LaMonte, Tampa, Fla.: “Popular demand is the reason I’ve switched over to electric heat.”

Leon Kilian, St. Michael, Minn.: “Electric heat is a tremendous advantage in closing sales fast.”

Richard Greenwald, Muskegon, Mich.: “My tenants tell me there’s nothing like electric heat for comfort.”

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NAHB's Research House VI near Washington, D.C., is a compendium of the latest and best ideas for making homes better, and more salable. Its most prominent exterior and interior material is brick.

The front elevation of the Research House is dominated by unusual, four-inch-thick loadbearing brick wall enclosing the carport. It gives approach to house distinction and elegance.

Designed as series of "U" shapes, wall provides utility, economy, and great visual interest. Wall supports roof; interiors of "U's" furnish handy storage space inside carport. Portions of wall are pierced-brick screens whose openings and projecting header courses create dramatic beauty and interest. A single wythe of brick was used in this extremely simple wall which needs no interior or exterior finish: Economy, in both materials and construction, is the result.

Other unusual brick usages: Reinforced Brick Masonry (RBM) retaining wall across front of house on lower level. Wall is exposed on interior; above fireplace in living room a decorative pattern is created by projecting brick four inches from wall and then alternately projecting and recessing header and stretcher courses one inch. Brick wall flows out from both sides of fireplace, unifying living room, atrium, den, and patio. A 20-inch-wide brick bench is cantilevered from wall.

These are unusual brick usages, yet they are easy to plan, simple to execute, and inexpensive to build. Any home builder can use brick in the same ways, or adapt these ideas to his own needs. Write for drawings of these details in NAHB Research House VI.

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Circle 69 on Reader Service Card
Fireproofing wood shingles—can it be done?

So far, the answer is still no. Reason: no economical fire-retardant has yet been found that can withstand the effects of rain—it leaches out the chemicals. But within the next five years—as soon as the U.S. Forest Products Laboratory completes a new series of shingle weathering tests—the answer will probably be yes.

Forest Products Lab has put 18 fireproofing treatments through a preliminary 28-day outdoor exposure test, and 12 have passed. While they are just at the beginning of an exhaustive testing program, at least two of the treatments show particular promise: 1) a synthetic resin system originally developed for fabrics, and 2) zinc borate, which is formed by combining two solutions in wood and is insoluble in water. Other possibilities: fire-retardant paints, and new fertilizers.

Plywood producers advance toward a single glue line

Today there are two glue lines—waterproof phenolic resin glue used in exterior plywood, and non-waterproof protein glue used in interior plywood. But in the near future, all plywood—both exterior and interior—will probably be made with the waterproof glue. Reason: Builder demand for exterior plywood has increased so sharply in recent years that it accounts for about half of total plywood production.

Here are some examples of how strong the single glue-line trend has become:

1. All the new plywood plants in the Southern pine region use only the phenolic resin glue line.
2. All structural plywood used in Los Angeles is now required by code to be produced with the waterproof glue line.
3. Distributors in Hawaii now sell nothing but waterproof plywood.

Having only one glue-line choice will simplify a builder’s plywood purchasing, but won’t it raise his plywood costs? No, says the plywood industry. While the cost differential between waterproof plywood and the interior type is about $5 per thousand sq. ft., the industry expects this would be eliminated by the production economies in adopting one glue line.

Want faster cost estimates for electric heating? Check this new computer

A heating salesman twists the dials, turns a switch, and the meter instantly tells the story: 1) how much heat loss—in kilowatts—to expect from a given house and 2) how much it will cost to heat the house annually. The briefcase-size computer works off house current or a car battery, and costs members of the Electric Heating Assn.—which developed it—under $100.

The dial settings (close-up photo above) feed the computer the following thermal design data about a house: square footage and insulation ratings of windows and doors, walls, ceilings and floors; and whether the house is over vented or unvented crawl space, over a basement or on a slab. Besides registering heat loss and operating cost, the computer permits a fast recalculation to show how much heating costs could be reduced by heavier use of insulation, storm windows and doors.
These five builders tell how they cashed in on Honeywell Electronic Air Cleaners

"Control panel is a talking point"
Mr. Richard H. Wieland, Builder of Brookwood,
Prince Georges County, Maryland

"We featured the Honeywell Electronic Air Cleaner in the 1963 Parade of Homes. Now, it goes in about half of our homes. Most people do not know about electronic air cleaning, but they do know about air pollution, and they react favorably when we go into a little sales pitch. "We sell the air cleaner as part of Comfort Conditioning along with a humidifier and air conditioning. We don't intend to make a big profit on the air cleaner, but feel it is important because it helps make our homes more saleable. We believe electronic air cleaning is on the increase and will feature it again in the 1966 Parade of Homes."

"We give the best, Electronic Air Cleaner is standard"
Mr. Lee Rosenberg, Panitz & Co., Inc.
Builder of Rumsey Island, Joppa, Maryland

"Rumsey Island, along with our other development, Joppa Town, is a planned community where every home has direct access to Chesapeake Bay through a series of canals. Our people are the type who like to come home and jump into their boats. Minimal housekeeping is important and the Electronic Air Cleaner is a strong feature for our homes. We don't believe in extras. All homes have a system that includes air conditioning and electronic air cleaning, a humidification system, and a central vacuum cleaning system. Our homes are more saleable because they have a sophistication that others don't offer. We feel that all homes should get to this point."

"A big hit... 90% order it"
Mr. Manny Barenholz, Developer of "Four Seasons," Cleveland, Ohio

"Builders have to realize that the Honeywell Electronic Air Cleaner needs an explanation. We use a very short, soft-sell presentation with a pamphlet supplied by Honeywell. The customers understand very quickly and 90% of them have installed the Electronic Air Cleaner since we began featuring it in 1965. "We use the Honeywell Electronic Air Cleaner to help sell the whole house. We were the first builder in our area to include it as standard equipment, and it gives us a real edge over the others. However, I believe eventually the Honeywell Electronic Air Cleaner will be as normal as a bathroom."
"Our house of the future includes clean air"

Mr. Theodore H. Bentley, Builder of Hollywood Highlands, Hollywood, California, and creator of the "SteelStone"® concept in tract housing

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For full details on any heating or cooling equipment, contact your G-E distributor. Or write directly to Air Conditioning Dept., AP6-208, Louisville, Kentucky.
Resilient tile for outdoor floors—but be sure it’s laid according to the instruction sheet

Specifically, this new vinyl composition—in 12” x 12” squares—must be applied over a neoprene primer plus a heavy-duty neoprene contact adhesive (photos right). Tests show that the resulting bond will withstand temperatures as high as 150°F and as low as 40° below zero. Tests also show that prolonged exposure to sunlight causes the tile colors—dark green, beige, slate gray or terra cotta—to fade only slightly. Don’t try to install the tile over wood. It’s strictly for structurally sound and well-drained concrete slabs. Also, do the job on a day when the temperature is between 70° and 90°F. Why cover a patio with tile? Because, says the manufacturer, it outlasts paint; costs less than flagstone, brick or ceramic tile; and is easier to maintain than outdoor carpet. Armstrong, Lancaster, Pa. Circle 250 on Reader Service card

These featherweight septic tanks take the lifting work out of installing a septic system

Made of reinforced fiberglass, the 300-gallon model sitting on the Volkswagen weighs only 125 lbs. Yet, in a test at Lehigh University, it withstood a 13,000-lb. crushload exerted by a 100-ton press.

Both the spherical and cylindrical models are shipped in two halves and—for storage economy—the halves can be nested together.

At the job site, the halves are joined and sealed with a tube of silicone rubber cement and pop rivets.

In addition to the tanks’ extremely light weight, the manufacturer claims two additional advantages: 1) the rounded design compensates for excess tipping or leaning in case of ground settlement, and 2) a plasticized liner makes the tanks impervious to chemical attack. Available sizes are: 300, 500, 750, 1,000, and 1,250 gallons.

The tanks are also available with built-in aeration equipment that permits them to operate as small-scale sewage-treatment plants discharging into streams. Cromar, Williamsport, Pa. Circle 251 on Reader Service card
A motorized Murphy bed—build it into any wood-paneled wall as a bonus sleeping area

A 1/4 h.p. geared-drive electric motor—operated by a wall switch—makes the bed go up or down. The motor is attached behind the headboard and a spur gear on the motor shaft travels along a gear sector attached to the stud supporting the bed (drawing). Limit switches stop the bed automatically in the up and down positions, and the system is protected by a fuse plug.

Conventional box springs and mattress are included with the unit, which comes pre-assembled or knocked-down in kit form. The builder attaches his own wall paneling to the footboard and bottom of the bed.

Framing requirements: a space 61" wide and 16" deep, including a 2"x6" stud on each side of the bed. Minimum ceiling height: 7'8". Practical Products, Danville, Va. Circle 226 on Reader Service card

Textured travertine panel

Simulates the surface detail and color of marble. It is offered in 16"x8' tongue-and-groove planks as well as in 4"x8' square-edged panels 3/4" thick. Matching moldings are available. Marlite, Dover, Ohio. Circle 222 on Reader Service card

Plastic decorator panels

24"x72"—are inserts for room dividers, windows, and screens. Opaque paint accents raised Moorish design in choices of: black on red, terra cotta on amber, turquoise on olive. K-S-H Plastics, St. Louis. Circle 224 on Reader Service card

Prefinished wall paneling

Comes in natural red and antique birch color tones, with a bold-planking effect of mismatched grain and colored grooves. The 4"x7' or 8' panels come in two thicknesses—3/16" and 7/8". Boise Cascade, Minneapolis. Circle 225 on Reader Service card

Rigid vinyl baseboard

Snaps onto a row of nailed-on clips, producing a nail-free surface that needs no painting. Also available: vinyl door and window trim. Four door-jamb sections adapt to three wall thicknesses. Crane, Columbus, Ohio. Circle 223 on Reader Service card

New products continued on p. 122
Carrier Dealers have broad backs

It's a matter of pride and good business practice with us to manufacture quality heating-cooling equipment.

But we don't stop there. We select dealers qualified to be of real help to you—and that takes in a lot of services you may not realize a Carrier Dealer has to offer.

For one thing, he can take all the headaches of a heating-cooling installation off your hands.

He can recommend year-round equipment matched precisely to each home or apartment you build...completely handle duct design, equipment location, wiring, controls...install equipment to schedule...install it right—his men are schooled in air systems...and back it up with service after it has been installed.

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Depending on your operation, he's in a position through our organization to offer you merchandising help tailored to your local conditions.

We think all this is well worth your consideration before you undertake any job.

Why not talk it over with your Carrier Dealer? His phone number is listed in the Yellow Pages. Carrier Air Conditioning Company, Syracuse 1, New York. Represented in Canada by Carrier Air Conditioning (Canada) Ltd.

Carrier Air Conditioning Company

More people put their confidence in Carrier air conditioning than in any other make
**NEW PRODUCTS**

*start on p. 119*

**Exteriors**

Three new solid vinyl clapboards offer improved thermal insulation and fastening methods

Double-6" clapboard—the style shown at the left above—is two 6" clapboard exposures extruded on the same panel. A layer of foam polystyrene insulation is factory-cemented to the back of the panel—in place of the separate fiber backerboard that the manufacturer previously supplied as insulation and which had to be inserted in the field. Double-6" comes in 10' lengths in white, green, and gray. Other styles available: double-4", and double-8". Bird & Son, East Walpole, Mass. Circle 231 on Reader Service card

The 6"-wide solid-vinyl clapboard shown in the center photo above promises flexible installation. It is applied by means of a nailing tab designed to function as a built-in spring for secure suspension of the siding. The manufacturer says the cost is closely competitive with non-plastic clapboards. Only one color is available: white. Monsanto, St. Louis. Circle 232 on Reader Service card

Vinyl clapboards incorporating T-Lok—shown in the drawing at the right above—can be installed either as hollow-backed panels or with drop-in backerboard. The interlocking system provides rigid self-aligning of panels but permits expansion and contraction during temperature changes. Exposure is 8", shadow-lap is 3/4". Mastic Corp., South Bend, Ind. Circle 233 on Reader Service card

Lap siding—3/8" thick, 12" wide, and 18' long—has contour edge for shadowline accent, and nailing guides. The siding—the manufacturer’s lower-priced line—is factory-primed and back-sealed. It is packaged six to a bundle. Masonite, Chicago. Circle 228 on Reader Service card

Striated aluminum siding incorporates a self-aligning snap lock for precise interlocking. The 8" horizontal lap panels are coated with fire baked acrylic enamel paint. Colors include green and sandalwood. U.S. Aluminum, Franklin Park, Ill. Circle 227 on Reader Service card

Pre-cut red cedar fence—5'4" high—has 2' top trim consisting of horizontal basketweave slats. Also available: a 6' version with only two horizontal boards. Support posts and pregrooved 8' rails are packaged separately. Potlatch, San Francisco. Circle 220 on Reader Service card

Redwood bevel siding with rough-sawn texture is available in two prefinished stains—red brown, and driftwood grey—and in natural redwood finish. Widths: 6", 8", and 10". Lengths: 3' to 20'. Butt thickness: 9/16". Simpson Timber, Seattle. Circle 229 on Reader Service card

New products continued on p. 124
Make a bottle. Fill it with dry air.
Seal it. And what do you have?
You have an empty bottle you can put in every window of your homes.

You have a piece of Thermopane® insulating glass.
It's made by our GlasSeal® process which fuses glass to glass. This gives us, in effect, a skinny, sealed bottle. We do this to keep the dry air inside and the dirt and moisture out. It's the only kind of bottle Libbey-Owens-Ford makes.

And after we make it, we etch the name Thermopane in the corner where people can see it.
Thermopane with the GlasSeal edge is available for practically all sizes and styles of windows you use, big, small or in-between.
(Leading wood window manufacturers already offer it as a standard option.)

Get windows with a bottle built in.
The kind with dry air inside.
Put them in your homes. They're money-makers.
Especially with the name Thermopane in the corner.

Only Libbey-Owens-Ford makes Thermopane in the U.S.A.
Office equipment

Electronic billing/accounting machine—with typewriter-style console, work area panels at each side, and plug-in solid state computer—occupies less space than an average office desk. Olivetti-Underwood, New York. Circle 206 on Reader Service card

Heat transfer copier makes its own spirit masters from any typed, written, or printed sheet up to 8½"x14", as well as dry copies. The machine—4½"x12½"x16½"—is finished in beige baked enamel and chrome. Copy Rite, Chicago. Circle 207 on Reader Service card

Electric paper cutter takes paper up to 21" wide and cuts over a ream at one stroke. It shuts off automatically after every cycle for safety and economy and comes with a one-piece metal stand 34½" high. Michael Lith, New York. Circle 211 on Reader Service card

T-square converter fits any T-square and drawing-board combination. A spring-tensioned nylon roller holds the head of the square against the edge of the board for drawing, and can be relaxed or tightened. Hoyle Engineering, Barstow, Calif. Circle 212 on Reader Service card

Table-top offset duplicator handles copy as large as 13"x17¼" and features a nine-roller inking system. The machine can process up to 7,500 impressions per hour. A smaller model takes 9½"x13" copy @ 4,500 impressions. A. B. Dick, Chicago. Circle 209 on Reader Service card

Vertical plan file for drop-lift filing conceals binders of lightweight aluminum. An optional table adds additional work surface and folds flat against the unit for compact storage. Heavy duty casters provide mobility. Plan-Hold, Torrance, Calif. Circle 210 on Reader Service card

Drawing board device holds 28"x40" board which, when mounted on a desk, can be moved to a vertical position (left) to leave the desk top free. Releasing a brake lets board be pulled into drawing position. Kuhlman-Impex, Houston. Circle 208 on Reader Service card

Automated thermocopier can be controlled to make any number of copies without altering the dial setting. It features three starting speeds: low, medium, and high. Cylinder circumference is 8½". Weight: 27 lbs. ABM Business Automation, New York. Circle 214 on Reader Service card

Single-lamp printer is designed for limited print volume. Unit is lightweight (57 lbs) and portable, and can be placed on a desk or wall-mounted. One dial control switches to print or sepia with no warm-up. Reproduction Engineering, Essex, Conn. Circle 215 on Reader Service card

New products continued on p. 126
"We save 50 man-hours a week"

"We use our Ford 4400 tractor and 735 loader to unload soil pipe—one trailer-truck in 15 to 30 minutes. Previously, it took seven men three hours to do the same job," says Richard Perotti, H. A. Perotti, Inc., Bristol, Pa.

"Ford 4400 and 753 backhoe has enabled us to increase our business ten per cent," Mr. Perotti continued. "With it, we can dig 887 feet of 4-foot trench in 6½ hours. Backfill 50 feet every ten minutes."

**Ford 4400 can save you the cost of additional equipment**—as well as time and labor costs. The 2,500-lb capacity loader lifts to a height of ten feet six inches. Breakout force is 3,770 lbs... bucket roll-back 22 degrees. Large backhoe lift and crowd cylinders—with in-line placement—give outstanding yardage-producing ability and deep hole digging power.

**Ford 4400 has power and strength to match its versatility.** Heavy-duty, fuel-thrifty diesel or diesel-strong gasoline engine. Oil-immersed multiple disc brakes. Heavy industrial front axle and support assembly. Work-speeding transmissions: manual reversing, dual range eight-speed, and powershift ten-speed.

**Look over a Ford 4400 tractor-loader-backhoe soon** at your Ford tractor dealer's. Put its power, speed, and versatility to work—adding to your profits and your production.
Hardware

Cabinet hardware is designed to blend with Spanish decor. The set of knobs, pulls, rings, and backplates is available in solid pewter with an antique finish and in solid brass with assorted finishes. Kingsley Brass, Roosevelt, N.Y. Circle 216 on Reader Service card

Door closer in three finishes—brushed brass, brushed aluminum, and white enamel—comes with three interchangeable motif strips that match or contrast with wood grain. Can be installed inside or outside door. Shelby Corp., Shelby, Ohio. Circle 219 on Reader Service card

High security locksets have keys with milled hollows that can only be duplicated by the manufacturer, and only owners can order duplicates. The unusual key configuration makes the lock virtually burglar-proof. Sargent Hardware, New Haven, Conn. Circle 276 on Reader Service card

Cabinet lock uses the manufacturer’s standard key. The lock is offered in brass or bronze with either a 1” or a 1½” throw. There is a six-pin model for a 1½” door and a five-pin model for a 1” door. Schlage Lock, San Francisco. Circle 277 on Reader Service card

Sliding-door pull assembly includes flush-mounted exterior pull and interior pull with latch and adjustable keeper. The cast zinc pulls—7¼” long—are finished in satin silver baked-on enamel and polished chrome. Amerock, Rockford, Ill. Circle 217 on Reader Service card

Metal sash balance and weatherstrip incorporates block and tackle plus two counterbalanced springs and pulleys per sash. Lock stops at top and bottom simplify installation. Finishes: gold, silver, coppers tone, and white. Zegers, Chicago. Circle 221 on Reader Service card

Door knob is available with all the manufacturer’s standard interior locksets in the medium-price range. The tulip-shaped knob with rose design is styled to complement contemporary decor. Arrow Lock, Brooklyn, N.Y. Circle 275 on Reader Service card

Joint clamp of ten-gauge wrought steel joins and levels plastic tops without glue, shims, dowels, or splines. The locking bolt exerts even pressure at the top and bottom edges of the joint so countertop can’t bend. Engineered Products, Flint, Mich. Circle 220 on Reader Service card

Matched cabinet hardware with Mediterranean motif comes in medieval copper, medieval brass, satin black, and antique silver. The line adapts to cabinets, linen closets, wardrobes, and closet doors. Hyer Hardware, Anaheim, Calif. Circle 218 on Reader Service card

New products continued on p. 128
You’ll sleep better nights
(and sell better days)

Usually it is a combination of appeals that sells. Desirable location. Good
design. Quality features. Modern comfort: Day & Night Air Conditioning,
for example. In air conditioning, as in water and space heating, people
recognize “Day & Night” as assurance of trouble-free performance. From
experience. From friends’ testimony. From Day & Night advertising.
And Day & Night products live up to expectations. They are installed by
responsible experts, who relieve you of all service worries. A Day & Night
dealer is handy. Owners can call him directly. So you sleep better.

There’s a Day & Night system to fit virtually any air conditioning job,
in homes, apartments, office and commercial structures. 2 to 15 ton units,
conventional, heat pump (with or without a supplementary heating coil),
heating and cooling together or separate, inside or outside, electric or
gas-and-electric (the famous Duopac).

Air conditioning is fast becoming one of the most wanted features,
a “must” in many instances. You’ll sell better and sleep better when you
offer air conditioning by Day & Night.
A bold new styling concept in Recessed Bathroom Cabinets

The Flair Series

By TRIANGLE PRODUCTS

The built-in incandescent top lighting . . . smartly tapered lines . . . the choice of luxurious walnut — (in life-time vinyl clad steel) or gleaming chrome are among many of the outstanding features of these new recessed cabinets which are exciting builders and dealers everywhere.

The Flair series is only one of the many styling and economy surprises to be found in the new Triangle line of quality crafted bathroom cabinets.

REQUEST FREE CATALOG

TRIANGLE PRODUCTS, INC. 945 93rd Street, Chicago, Illinois 60619

Circle 79 on Reader Service Card

NEW BLU-RAY WHITEPRINTER COSTS ONLY $239.50*

The new Blu-Ray model 142 whiteprinter copies anything typed, written, drawn or printed on translucent or semi-opaque materials up to 42" wide by any length. Makes foils and sepios, and does anything larger, costlier machines can do. It features a troublefree electronic speed control. And it's so compact it fits on any table or hangs from any wall. In short, it's an amazing value: Try it in your office, free.

* Slightly higher west of the Rockies.

BLU-RAY, Incorporated
234. Westbrook Road, Essex, Conn.

BLU-RAY has nine models. If we don't have one to meet your needs we'll make it. Circle No. 93 on Reader Service Card for complete information.

Electrical fixtures & wiring

Weatherproof enclosure with locking cover fits flush with wall so it cannot be pried open. May be used with switches or outlets of up to 5-ampere rating. Made of heavy cast aluminum. Pass & Seymour, Syracuse, N.Y. Circle 201 on Reader Service card

Low-priced radio-intercom comes packaged with master panel, three room speakers, one door station, wire, and rough-in materials, and can handle three more speakers. Calls can be made from speakers while radio is on. Rangaire, Cleburne, Tex. Circle 205 on Reader Service card

Load centers with circuit breakers offer a better-designed front with 1) all edges beveled and rounded, 2) a set-in flat door, and 3) all box connectors concealed. Sizes are available for two to 40 circuits. I-T-E Circuit Breaker, Philadelphia. Circle 203 on Reader Service card

All-weather vinyl tape can be applied in sub-freezing temperatures and will also withstand excessively high temperatures up to 176°F. It is sold at standard electrical-tape prices in ¾"x66' rolls. General Electric, Schenectady, N.Y. Circle 204 on Reader Service card

Wall-mounted radio, combined with an independent duplex receptacle or a switch-receptacle combination, is for kitchens and bathrooms. Face plate is same size as a standard three-gang wall plate. In ivory or brown. Rodale, Emmaus, Pa. Circle 202 on Reader Service card

New products continued on p. 130
What is the best way to develop your tract?

This book tells you

TRACT DEVELOPMENT, Volume 2, is an authoritative series of articles dealing with the problems of land development and the answers found by builders in every part of the country. These case histories show you how other builders solved their problems practically and profitably.

Send for this 48-page book of helpful articles, authored by some of the world's foremost authorities on Tract Development. There's a free copy waiting for you. Just fill out the coupon and mail it today.

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**The trade’s talking about teak!**

*Diamond Martinique Pattern* in Indianapolis home of Mr. & Mrs. G. W. Raffensberger, Designers

- Thai-Teak (authentic Tectona Grandis, imported from Thailand) is genuine teakwood... lustrous, warm-grained... supremely beautiful.
- Thai-Teak is trouble-free, easy to maintain... needs only an occasional waxing.
- Thai-Teak is “lifetime” flooring... withstands the hardest wear... resists termites, rot and decay.
- Thai-Teak costs now compare to medium priced carpet and vinyl.
- Thai-Teak comes in 85 different patterns, available for delivery... send for our Trade Bulletin 200 today.

**BANGKOK INDUSTRIES, INC.**

1545 W. Passyunk Ave., Phila., Pa. 19145

Circle 80 on Reader Service Card

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**Heating, cooling, ventilating**

- **Dual-cabinet air-conditioner** for room cooling mounts in a window but permits the sash to open and close to within 2” of the sill. Installation includes a foam-rubber sealer. Six models: 5,000 to 16,000 Btuh. Dearborn Stove, Dallas. Circle 260 on Reader Service card

- **Plastic air-conditioner case** is the first structural use of polycarbonate resin in major appliances. Advantages: no rust, no sweating, light weight. The case above houses a 5,000-Btuh room unit weighing 59 lbs. General Electric, Louisville. Circle 261 on Reader Service card

- **Power ventilator** for exhausting attic heat operates by thermostat. Low-profile roof housing—8 1/2” above shingles—is made of white plastic which can be painted to blend with roof. Capacity: 1,400 cu. ft. per min. Butler Eng., Mineral Wells, Tex. Circle 262 on Reader Service card

- **Under-cabinet radiator**—4”x18”x21”—is mounted horizontally at floor level. Ideal uses: bathroom and kitchen remodeling. The unit delivers over 8,000 Btuh at 180° water temperature. Motor and blower are completely isolated. Beacon-Morris, Boston. Circle 263 on Reader Service card

New products continued on p. 132

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**Two million travelers will sleep in motels tonight.**

Why not open a Quality Courts Motel and invite them in. We’re opening 100 new motels in 1966, and franchises are now available to qualified investors. We provide complete financial counseling to help you get the best mortgage at lowest cost: up-to-date information on loans, interest rates and brokerage fees. Call or write: Joe Mobley, Quality Courts Motels, Dept. HH-8, Daytona Beach, Florida. Area Code 904, 677-8711

Circle 81 on Reader Service Card

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NEW PRODUCTS

start on p. 119

HOUSE & HOME
If you'd like to know how 
1/4" Weyerhaeuser Versabord keeps call-backs off your back, mail this coupon.

It's the only underlayment made exclusively for floor remodeling and guaranteed for a full year.

We make this particleboard underlayment under the strictest quality control conditions—43 tests in all. There are no knots, splits or hidden voids. Versabord panels are made to precise tolerances of 1/100 of an inch to assure smooth, level joints that won't telegraph through the finish floor. And the grain-free surface is sanded both sides for quick, either-side-up installation.

Versabord is simply the finest underlayment money can buy. And when it's put down according to our instructions, we protect both it and you with an airtight written performance guarantee. That means you can guarantee your next remodeling job—and the next and the next.
Textured acoustical ceiling comes in steel and anodized aluminum in a wide range of patterns and perforations. Twenty-six gauge steel pan is recommended for most interiors, 20-gauge for high-abuse areas. Hauserman, Cleveland. Circle 236 on Reader Service card

Acoustical metal pan system combines gypsum board backing with standard pan assembly. Uses either ½" long-length gypsum lath or wallboard. Noise reduction coefficient range: .75 to .85. National Gypsum, Buffalo, N.Y. Circle 234 on Reader Service card

Vinyl-surface metal beam can be snapped into place over main or cross tees in ceiling suspension systems, or installed on plaster, gypsum board or tile ceilings. Dimensions: 2¼" wide, 3" deep, 12' and 4' long. Finish: walnut. Celotex, Chicago. Circle 237 on Reader Service card

Suspended ceiling panel comes in 2' square and 2'x4' sizes. The nonacoustical lay-in panels feature an intricate tan fissured design. The new panel has been added for the lower priced suspended ceiling market. Armstrong, Lancaster, Pa. Circle 235 on Reader Service card

Textured acoustical ceiling...sells more homes Install Chromalox electric Thermwire heater mats easily in concrete or asphalt driveways. Offer your prospects this time-and-work saving feature. All it takes is a flip of the switch...or can be thermostat controlled. A big "plus" sales feature for your homes. Other Chromalox mats available for sidewalks and steps. Write today for Bulletin MG0100.

MAGNETIC CATCHES designs to meet every need for doors and cabinets Each is designed for neat appearance, to mount easily in a variety of ways, and to last a lifetime. Magnets are self-aligning to enlarged strikes. There's a style and size for every need.

See Sweet's Catalog under Arch. File 19gEn and light Const. File 7b-En for the complete EPCO line of magnetic catches, track for sliding doors, pulls and knobs.

THE ENGINEERED PRODUCTS COMPANY
P.O. BOX 108
FLINT, MICHIGAN 48501

Circle 83 on Reader Service Card

Circle 84 on Reader Service Card
Ashley Oaks Apartments, Atlanta, Georgia. This 228-unit garden type apartment is comfort conditioned by individual York Flex-O-Metic® air conditioners, combined with Borg-Warner electric furnaces. Owner and General Contractor, C and A Land Company; Architect, Van Fraser, A.I.A.; Mechanical Contractor, General Heating and Air Conditioning Company; Plumbing Contractor, General Mechanical Corporation.

When you build a modern garden apartment, you can depend on York for advanced comfort conditioning units and systems! And now York offers builders an exclusive odor control system, with Purafil™ odoroxidant, that can be included in any York air conditioner. This amazing York feature doesn't mask odors, or store them. It destroys them, chemically!

And York offers builders many more features, including factory-charged systems, quick-connect couplings that speed installation. York's vertical air discharge on the heat exhaust section protects the building, won't damage lawn or shrubbery.

For more facts, contact your nearby York Dealer. Or write York Corporation, subsidiary of Borg-Warner Corporation, York, Pennsylvania. In Canada, contact National-Shipley Ltd., Rexdale Boulevard, Rexdale, Ontario.
sell more homes faster with Majestic fireplaces

Majestic® contemporary wood-burning fireplaces

Smart, modern decorator-styled. A genuine, log-burning fireplace! Unique, tidy “Silent Butler” ash drawer helps keep dust and fly ash off carpets, draperies and furnishings. Firebrick hearth is 24” x 36”, tapers to 8” round flue. Red, White, Gold porcelain enamel, or matte black, finish. Complete package is easy to install.

Majestic® thulman® wood-burning fireplaces

Pre-Built, Compact, Lightweight! No footings or foundation needed. Just build into studding and wallboard material. Any location in any type house. Any finish or trim. Any mantel style. Front opening or open-end type; 36” or 42” wide opening. Complete base-to-rooftop package is easy to install.

NEW LITERATURE:

For copies of free literature, circle the indicated number on the Reader Service card, page 117.

METAL COATING. Cost and performance of fluoropolymer enamel are compared with other products used to pre-coat metal building components. Eight-page brochure. Du Pont, Wilmington, Del. Circle 355 on Reader Service card

HOT WEATHER CONCRETING. The important steps to follow before, during, and after placing concrete during hot weather are outlined on a placard. Master Builders, Cleveland. Circle 313 on Reader Service card

WHOLESALE BUILDING MATERIALS. Mail order firm’s 168-page catalog features a free freight offer on large orders. Weldon siding, folding doors, room dividers, and built-in vacuum cleaning systems are among new products included. Morgan-Wightman, St. Louis, Mo. Circle 314 on Reader Service card

SUBTERRANEAN TERMITE CONTROL. Manual includes FHA specifications for termite control in slab-on-ground and basement or crawl space construction. It tells how to choose the necessary equipment, prepare the emulsion, and select the chemical. Velsicol Chemical, Chicago. Circle 311 on Reader Service card


ALUMINUM SWIMMING POOLS. Brochure discusses performance of aluminum in swimming pool construction, and describes use of the metal in diving boards, coping systems, ladders, fencing, and other accessories. Alcoa, Pittsburgh. Circle 346 on Reader Service card

HARDBOARD SIDING. Revised catalog of 24 pages describes manufacturer’s line and tells how and where to apply it. Illustrations include soffits, ceilings, fences, patio walls, and corner, door, window and joint details. Masonite, Chicago. Circle 348 on Reader Service card

WOOD STAINS. Product folder in full color shows manufacturer’s stains in two formulas: semi-transparent and heavy-duty opaque. Color charts and application suggestions are included. Shakerstown, Cleveland. Circle 308 on Reader Service card

UNDERLAYMENT. Brochure—with illustrations and cutaways—enumerates advantages of hardboard panel designed for use under resilient floor coverings such as linoleum, asphalt, cork and vinyl tile, and carpeting. Detailed installation procedures are given. Masonite, Chicago. Circle 309 on Reader Service card

WOOD CABINETS AND VANITIES. Full-color brochure shows kitchen installations of manufacturer’s colonial cherry and natural birch line. Vanities are shown in white with gold molding, and also in cherry and birch. H. Willett, New Albany, Ind. Circle 305 on Reader Service card

VACATION HOMES. Twelve views and plans for second homes from seashore shelters to mountainside chalets and year-round homes. Standard door, window, and lumber sizes are used to a maximum for simple, economical construction. Western Wood Products. Portland, Ore. Circle 302 on Reader Service card

CONCRETE FORM BOARD. Wall column, deck and beam applications are discussed and illustrated in a four-page brochure which tells how to nail and space form lumber, and how to oil, pour, and remove forms. Detailed graphs and tables on allowable concrete pressures and maximum support spacing are included. Masonite, Chicago. Circle 349 on Reader Service card

A Marketing Plan for Home Builders and A Marketing Plan for Apartment Builders, reported in last month’s New Literature, are now available only through salesmen of Allied Chemical’s Barrett Division—not by using HOUSE & HOME’s Reader Service number.
**House & Home ADVERTISERS’ INDEX**

<table>
<thead>
<tr>
<th>Page</th>
<th>Advertiser</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20, 21</td>
<td>Kemper Brothers, Inc.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Kentile, Inc.</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Kingsbury Homes Corp.</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Kohler Company</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Lennox Industries, Inc.</td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Libbey • Owens • Ford Glass Co.</td>
<td></td>
</tr>
<tr>
<td>134</td>
<td>Majestic Company, Inc.</td>
<td></td>
</tr>
<tr>
<td>118E5E6</td>
<td>Marbon Chemical Division</td>
<td>(Borg Warner Corp.)</td>
</tr>
<tr>
<td>118M1N3</td>
<td>Maze Co., W. H.</td>
<td></td>
</tr>
<tr>
<td>115, 118W3</td>
<td>Miami-Carey Division (Philip Carey Mfg. Co.)</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Mississippi Glass Co.</td>
<td></td>
</tr>
<tr>
<td>30, 31</td>
<td>Moe Light Division (Thomas Industries)</td>
<td></td>
</tr>
<tr>
<td>118E4N4</td>
<td>Morrison Steel Products Co.</td>
<td></td>
</tr>
<tr>
<td>118N2</td>
<td>Mortgage Exchange Company of America, Inc.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Mosaic Tile Co.</td>
<td></td>
</tr>
<tr>
<td>57, 101</td>
<td>National Concrete Masonry Association</td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>NuTone, Inc.</td>
<td></td>
</tr>
<tr>
<td>32, 33, 34</td>
<td>Overhead Door Corp.</td>
<td></td>
</tr>
<tr>
<td>118W9</td>
<td>Pacific Clay Products</td>
<td>(Los Angeles Brick Division)</td>
</tr>
<tr>
<td>103</td>
<td>Paslode Company</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Pittsburgh Plate Glass Co.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Plan Hold Corp.</td>
<td></td>
</tr>
<tr>
<td>25, 26</td>
<td>Ponderosa Pine Woodwork</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Price Pfister Brass Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>48, 49</td>
<td>Progress Manufacturing Co., Inc.</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Quality Courts Motels, Inc.</td>
<td></td>
</tr>
<tr>
<td>118W7</td>
<td>Rain Bird Sprinkler Corp./Rainy Sprinkler Sales</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Red Cedar Shingle &amp; Handsplit Shake Bureau</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Reproduction Engineering Corp.</td>
<td></td>
</tr>
<tr>
<td>118W10A, W10B, E6A, E6B, M2E, M2F, N4A, N4B, S1, S2, SWA, SWB</td>
<td>Reynolds Metals Co. (Building &amp; Supply Division)</td>
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<tr>
<td>118W2</td>
<td>Roberts Consolidated Industries, Inc.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Rotolite Sales Corp.</td>
<td></td>
</tr>
<tr>
<td>118W1</td>
<td>Shakertown Corp.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Smith • Loveless</td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Southern Pine Association</td>
<td></td>
</tr>
<tr>
<td>118W6</td>
<td>Southern California &amp; Southern Counties Gas Co.</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Structural Clay Products Institute</td>
<td></td>
</tr>
<tr>
<td>60, 61</td>
<td>Tappan Company, The</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Torqino of America, Inc.</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Triangle Products</td>
<td></td>
</tr>
<tr>
<td>53, 54</td>
<td>United States Steel Corp.</td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>Weyerhaeuser Company (Wood Products Division)</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Whirlpool Corp.</td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>Wiegand Co., Edwin L.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Williamson Co., The</td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>York Corporation</td>
<td></td>
</tr>
</tbody>
</table>

**ADVERTISING SALES STAFF**

- **ATLANTA** 30309
  - Glenn P. MacNerland, 1375 Peachtree St., (404) 875-0523

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  - James R. Schaffer, McGraw Hill Bldg., (617) 262-1160

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  - Robert M. Brown; John L. Filson; Ray W. Stoddard, 645 N. Michigan Ave., (312) 664-5800

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  - Milton H. Hall, Jr.; James A. Green; 55 Public Square (216) 781-7000

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  - Kenneth G. George, 2270 Humble Bldg., (713) 224-8381

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- **NEW YORK** 10036
  - Caswell Speare 500 Fifth Ave, (212) 971-3204

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- **PORTLAND** 97204
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- **SAN FRANCISCO** 94111
  - Robert A. Mierow, 225 California St., (415) 362-4600

**PRODUCTION MANAGER**

Vito De Stefano
McGraw Hill, Inc.
330 West 42nd St.
New York, N. Y. 10036
(212) 971-3204
These new plywood sidings will help a lot of builders win design awards in 1966.
They'll help even more builders save money.

Today's distinctive plywood sidings give the unmistakable look of quality to many a $50,000 home. But they make just as much sense on the low-budget house. Plywood goes up fast and can be applied directly to studs, eliminating sheathing. And now it comes in dozens of styles, textures and finishes. We had room to show only eight here. But you could use plywood on every house in a 40-house tract and no two would look alike.
What more could you ask? Color pictures, specifications, manufacturers' names?
Send the coupon.

(They can help you do both.)
The use of Armstrong floors in the new NAHB Research House in Washington, D.C., illustrates some important, new innovations which can add both installation efficiency and customer appeal to today's new homes.

1. New comfort and quiet. The flooring used in the bedroom shown opposite and in other rooms of the second floor of the NAHB House is Armstrong Cambrian Vinyl Corlon. Cambrian is the most comfortable vinyl floor Armstrong has ever made. It has the exclusive Armstrong Cushioncord Back, a thick layer of foamed vinyl beneath the tough vinyl surface. Cambrian gives underfoot and then comes right back when pressure is released. But for all its light-footed comfort, Cambrian is also as tough as any floor Armstrong ever made for the home. Even spike heels won't dent it.

Cambrian's foamed vinyl back reduces both the noise of footsteps in a room and noise transmitted to the room below.

This new floor has a pebbly, textured surface, comes in eight decorator colorings, and can be installed at any grade level.

2. Sealed seams in sheet vinyl. Using an efficient, new Armstrong installation system called Securabond, the installer can seal the seams in Cambrian. The floor is bonded at the seam from top to bottom, completely waterproof, and easier than ever to keep clean. You can offer prospects a written Armstrong guarantee with Cambrian, too. It covers both the material and installation when done by an approved Armstrong retailer. It's a useful sales extra.

3. Timesaving, new installation technique. In the entranceway, dining room, and living room of the NAHB House, the slate design in Coronelle Vinyl Corlon was installed by another new Armstrong installation system called Perimiflor. With this technique, adhesive is applied only to the perimeter of the floor area, at seam lines, and around fixtures. Installation is simpler, faster, and more convenient because it's not necessary to cover the entire floor area with adhesive. Coronelle was used here to give the luxury appeal of slate, without the high cost and installation difficulties.

Montina Vinyl Corlon was installed in the research house kitchen and family room with the same new timesaving Perimiflor installation technique.

Your Armstrong Architect-Builder-Contractor Representative can give you more information about these and other new products from Armstrong. Call him, or write: Armstrong, 308 Sixth Street, Lancaster, Pennsylvania.

Cambrian, Corlon®, Coronelle, Cushioncord, Montina®, Perimiflor, and Securabond are trademarks of the Armstrong Cork Co. Coronelle slate floor design copyrighted by Armstrong.